

Paradoxes of War

Dealing with Anarchy

**Revolutions
in Military Affairs**



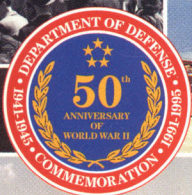
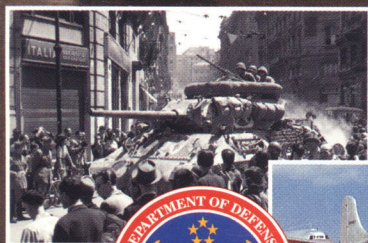
Roles and Missions



Joint Littoral Warfare

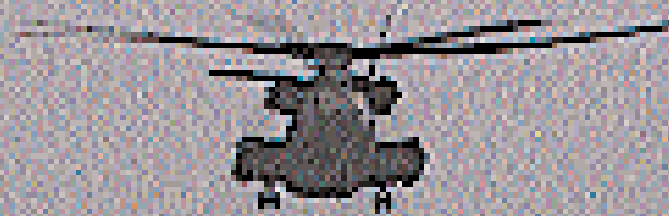
**China's
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**The Campaigns of
World War II**



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A landing on a foreign coast in face of hostile troops has always been one of the most difficult operations of war.

— Captain Sir Basil H. Liddell Hart



JFQ



FOREWORD



PHOTO CREDITS

The reproduction of the portrait of General of the Army George C. Marshall on the cover is after the original in the National Gallery of Art by Thomas E. Stephens. The cover insets (from top) show Blackhawk and Cobra helicopters being loaded on USS Capella after Desert Storm (U.S. Army/Robert Reeve), Marine amphibious assault vehicle coming ashore during Restore Hope (U.S. Navy/Terry C. Mitchell), Allied tanks in Italy during World War II (U.S. Navy/Naval Historical Center), Douglas Skymaster transport on Okinawa (U.S. Marine Corps/Duncan), and USS West Virginia steaming off the coast of Okinawa.

The front inside cover and cross-over page depict a CH-53E Super Stallion (left) and a CH-53 Sea Stallion (right) flying over an amphibian assault vehicle and a mechanized landing craft (foreground) as a utility landing craft brings Marines to shore from amphibian assault ship at anchor (U.S. Navy/Jeff Elliott).

The background illustration on these pages is of Marines advancing (U.S. Marine Corps). The insets (from top) are of F-16s from Misawa Air Base, Japan (U.S. Air Force/Lem Robson); hulks of Sherman tanks inland from Anzio near Cisterna in mid-1944 (U.S. Navy); the United Nations crest; and the Australian guided missile destroyer HMAS Brisbane (Royal Australian Navy).

The back inside cover captures an F-16 taking off during Team Spirit '93 (Joint Combat Camera Center/Ken Wright).

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May 1994

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A Word from



On what turned out to be a cool May evening in the devastated city of Berlin, the final act of the drama was played out. With Soviet troops only blocks away, grim figures moved up the steps of a bunker, carrying a limp corpse. As “Stalin’s organs” lit up the night sky with bright flashes of orange, punctuated by the deafening roar of the largest concentration of artillery fire in history, a circle of men laid the lifeless bundle on the ground, soaked it in petrol, and struck the match that turned a mass murderer into vapor and ash. Hitler’s death ended years of war that had begun when Nazi forces pulverized Poland’s frontier and ignited the most terrible conflict ever seen. With his suicide, the world was free to start anew.

Americans and Europeans will join hands this spring to mark the 50th anniversary of the counter-invasion of Europe, an effort made irreversible on June 6, 1944 when the greatest armada ever assembled set sail from Portsmouth harbor for the short voyage to the beaches of Normandy, a voyage that would liberate Europe.

This issue of *Joint Force Quarterly* revisits the lessons learned from some of the campaigns of that war. But while the articles in JFQ Forum examine specific strategic and operational aspects of the European and Pacific theaters, I want to elevate the historical

the Chairman



American soldiers marching through an English coastal town to board landing ships for Normandy.

Naval Historical Center

level of this retrospective by dwelling for a moment on the larger, enduring lessons of World War II.

The first lesson was the strategic realization that the fate of Europe and America was one and the same. During the 19th century Americans could watch as Europeans fought each other, using the expanse of the Atlantic moat as a barrier to involvement. Conducting business with those states in need of loans and goods to field armies and sustain their populations was typical of the extent of American interest in European conflicts of the last century. By the dawn of this century, however, the Atlantic was little more than a pond. Our affairs became so intertwined with those of Europe that we could no longer avoid the reach of political intrigue and war on the Continent. After being drawn into two world wars by events in Europe, we vowed never again to sink into the trap of disengagement. And for fifty years, throughout the entire Cold War, we honored that lesson.

The second lesson was that collective action—regardless of its drawbacks, intricacies, and frustrations—is almost always preferable to unilateral action. It took the shock of two world wars and the advent of the Cold War before we finally abandoned George Washington's dictum to avoid alliances. But in departing from his warning we did so with quintessential American enthusiasm. In the wake of World War II we became the most ambitious architect of interlocking alliances to ever come upon the international scene. Our security arrangements spanned the globe, created by one treaty after another. When we completed this system of alliances the United States was tied by mutual defense agreements to every continent, save for Africa and Antarctica.

The third and largest lesson was exerting our great strength to shape the world or suffer the fate of a rudderless ship caught in a storm, buffeted in every direction, trying desperately to avoid being capsized, flung from one course to another, and always at the whim of some external force. We mastered the complexities of global leadership, assumed enormous responsibilities, and invested our power and resources to create a

new world under the rule of law and nurtured by free markets and the spread of democratic institutions.

We embraced these three lessons and made them the focus of our Cold War policies and strategies. But in embracing them we created an uneasy alliance between experience and wisdom, on one hand, and the attitudes that go to the heart of our national being, on the other. As a nation of immigrants we have a deep yearning to leave behind the problems of the proverbial "old world." To this day we remain wary of becoming involved in the seemingly endless rivalries of Europe, the Middle East, and Asia. Similarly, rugged American individualism, an instinct that goes back to core democratic values, causes us to chafe at the prospect of collective action, even when it appears to be the only alternative and clearly to our advantage. Finally, as citizens of the oldest democracy, Americans have a native distrust of power, in any form, including our own national power. Every occasion when we are called upon to use our power, regardless of how noble and grand the aim, we find ourselves caught in a vise, pressed on the one side by a sense of responsibility and on the other by a fear that we might be abusing our power.

The commemoration of Normandy and other great battles and campaigns of World War II coincides fortuitously with our entry into a new era. These events are reminders of what happens when we flirt with isolationism or disengagement. They make us recall that the world has grown far too small, and that economic and other national interests have grown far too large, to disengage from Europe, the Middle East, and Asia. They clearly remind us that the Armed Forces must be strong and ready, superbly equipped, comprised of our finest young men and women, and able to deploy to any region of the world where American interests are threatened.

These are the enduring lessons of World War II. We must carry them into the future.

JOHN M. SHALIKASHVILI
Chairman
of the Joint Chiefs of Staff

CHALLENGES in a Time of Transition

I am pleased to become the editor-in-chief of a journal that has earned a significant niche in professional military circles after only one year of publication. *Joint Force Quarterly* has sought to enter the debate on the challenges that face the Armed Forces. These interrelated challenges include jointness, coalition warfare, peace operations, rightsizing, and revolutions in military affairs. Each challenge has common roots, from a transformed international system to exponential improvements in information technology. One key in dealing with these challenges is doctrine, the foundation of military operations and a conduit for introducing innovative ideas to future warfighters.

Institutional changes in the wake of the Goldwater-Nichols Act greatly increased military effectiveness by integrating warfighting capabilities under the rubric of *jointness*. In this period of declining force structure, jointness also increases cost effectiveness. But the joint age has just begun. To build on accomplishments achieved thus far, we must strive for a higher degree of jointness, including joint culture. This entails preserving service culture to promote tactical combat advantages while, at the same time, transcending parochialism and creating a true joint culture. The object is to instill jointness in the Armed Forces as an irreversible trend in military affairs.

The continuing prospect of *coalition warfare* presents a challenge that is scarcely new. For most of our history—from Yorktown to Desert Storm—coalitions have been part of the American way of war. The greater emphasis on coalition war arises from a complex of contemporary issues: reducing forces, burden sharing, and legitimacy for conducting operations in the post-Cold War era. As a result there is a pressing need both to incorporate the lessons learned from coalition wars of the past and to frame doctrine to underpin coalition warfighting for the future. To address this need we must strengthen security organizations in regions of particular importance to the Nation, develop greater interoperability with those organizations, and create enough institutional flexibility so that we can forge key alignments within larger organizations. For example, the concept

of the combined joint task force for Europe is designed to provide just such flexibility.

The increasing emphasis on *peace operations* puts a premium on doctrine for civil-military (or interagency) efforts across a range of situations short of full scale war. Like coalition warfare, peace operations require complex multinational decisionmaking and a high degree of coordination with the military establishments of other countries. But peace operations also involve deploying capabilities in highly constrained political environments where decisive force often cannot be used. Beyond developing doctrine for such difficult but diplomatically important tasks, the primary needs of multinational peace operations arise in the areas of command and control, intelligence, training, logistics, and force mixes to forge reliable multinational capabilities.

Another challenge is posed by *rightsizing* forces in concert with rationalizing service roles and functions. The ability to cutback forces to meet the requirements of budgetary constraints as well as two nearly simultaneous major regional conflicts is thus far a somewhat elusive goal. Jointness is the means to achieve rightsizing by shedding Cold War infrastructure without slipping once again toward a hollow force. It is also a way of linking today's military to that of the 21st century.

Revolutions in military affairs must be clearly identified and adapted to what some call "the military after next." This challenge involves both a revolution in military thinking and operational concepts and an evolution in technological innovation. Efforts to reshape battlespace and to harness information are in the vanguard of these processes. An article in the current issue entitled "Revolutions in Military Affairs" represents the first contribution to what will be a continuing look at this challenge. *JFQ* intends to focus on such revolutions through an essay contest to be formally inaugurated this summer under the cosponsorship of the Office of the Secretary of Defense (Net Assessment) and the National Defense University Foundation.

These five challenges both pose problems and provide solutions for the 21st century. *JFQ* seeks contributions that clarify the nature of these challenges and improve the effectiveness of the Armed Forces. I encourage our readers, military and civilian alike, to submit their innovative thoughts in the form of articles, commentaries, letters to the editor, and professional notes.

HANS BINNENDIJK
Editor-in-Chief

Paradoxes of War

By GRANT T. HAMMOND



Oil field set ablaze by retreating Iraqis.

U.S. Navy (Ed Bailey)

Increasingly the use of force is a last resort of industrialized nations. This is an admission of defeat since war can no longer be rationalized in economic terms. Force is most effective when one possesses it but is not compelled to use it. Conventional or nuclear conflicts, the Persian Gulf War notwithstanding, are not worth the costs for the losers, and in many cases not for the victors. Bankruptcy, moral or financial, may be the shared outcome for all parties to future conflicts.

The image of war, shaped over centuries, is precise, graphic, and evocative. It is marked by battles: expenditures of blood and treasure sufficient to achieve military

objectives that lead to new international alignments. Although this image is common and compelling, it is increasingly irrelevant; it reflects outdated, simplistic, even romantic ideas about winning and losing. It is an image of war based on paradoxes that should be obvious on reflection, but that have been elusive in developing new concepts for national security policy and military strategy.

Paradoxes are variously defined as tenets contrary to conventional wisdom, arguments that yield seemingly self-contradictory conclusions, and statements that run counter to common sense. While much has been said about the search for a new

Summary

War is apt to defy its traditional image in the future. If the end of past wars was to win by fighting better than one's adversary (violence marked by a hardware-driven, physical contest to destroy the enemy's means), the end of future wars may be *not* to lose by *not* fighting an adversary (peaceful competition characterized by a software-driven, moral and cerebral contest to change perceptions). This is not simply a choice between conventional and unconventional images of war. We must reinvent war by redefining its nature. Armed conflict as it has been known is beyond the capacity of most nations today. Military victory no longer enjoys the cachet that it once bore. By understanding the paradoxes of war we will help to ensure the future success of the Armed Forces.

paradigm of national security, there is a good deal to be gained from reexamining old paradoxes. The importance of paradoxes to understanding war is so vital as to be transforming. Future wars are likely to be fought with different insights, using different means, and on different levels. Absent appropriate strategies, operational concepts, and tactics under this new set of circumstances, the Nation will fail to prevail.

The Image of War

Perceiving war as a contest marked by the use of force is a woefully incomplete, tragically simplistic, and fundamentally flawed view. The consequences of such an image are

profound. By not grasping the nature of war, waging war has become a needlessly spendthrift exercise in lives and resources, however well fought. Wars are messy, unpredictable,

costly, inefficient, and often ineffective. While war has been a major instrument of change across history, it is an increasingly unaffordable activity by most measures. It has been a means of state creation and state destruction. Slaughter on a grand scale using unsophisticated but lethal weapons will continue. Further, war will evolve into a more carefully crafted form of conflict with a different set of dynamics than in the past.

War may be transformed by changes in ends as well as in means. Conflicts may occur in periods outwardly indistinguishable from peace and may not involve any forcible rearrangement of territory, interests, or resources. Such conflicts may be managed shifts in the *status quo*. In short, a future war among industrialized states, even if effective and efficient, could be virtually invisible. It is likely to be an information war at least in part, waged between the perceptions of adversaries. It will involve legions of data flows, competing information systems marshaled and sequenced like troops, aircraft, and ships. The sand table will be mental and emotional virtual war, no less deadly and

real. The Armed Forces must make major adjustments to be successful in such conflicts.

The accompanying table (Images of War) contrasts the received wisdom about war with the reality. The conventional image is the paradigm for describing, explaining, and predicting war; the unconventional image reflects the reality of waging war in the future.

This is not a case of either/or. We need *not* select one image of war to the exclusion of the other. Rather, we must reformulate the notion of war to include the unconventional as well as the conventional. The nature of wars—the arms with which they are fought, objectives for which they are waged, and means by which they are sustained—is at once more basic and complex than one would believe.

The elements of the paradoxes of war are not novel. Most have been known for millennia. Sun Tzu argued nearly 2,500 years ago that war is based upon deception, and that the acme of skill is to subdue enemies without fighting them.¹ While the reluctance to accept this truth is the subject of other discourses, suffice it to say that the insight found in these paradoxes when taken collectively leaves no alternative but to alter the paradigm of war. Failing to do so will virtually guarantee the inability of the Nation to compete successfully in the post-Cold War world. The Persian Gulf War then—which some argue the coalition forces *did not win* and Saddam's army *did not lose*—is but a foretaste of the disappointment to be experienced unless we change our understanding of war.

Conflict versus Competition

When a contest by force of arms occurs the results of peacetime military decisions are either validated or invalidated. It is prior to a physical contest that weapons are designed and procured, strategy and tactics are developed, and training is accomplished. Thus wars are often won or lost before a shot is fired. Great leaders, technological breakthroughs, and luck may change outcomes, but such events are rare and do not constitute a sound strategy. The Battle of Britain exhibited all three factors but the outcome was nonetheless extremely close.

In his essay "The Moral Equivalent of War" William James stated: "The intensely

while war has been a major instrument of change across history, it is an increasingly unaffordable activity

Grant T. Hammond is professor of international relations and chairs the Department of National Security Studies at the Air War College. His latest book is *Plowshares into Swords: Arms Races in International Politics, 1840-1991*.

Images of War

Conventional Image

violent conflict
physical contest
waged in space
act of destruction
begun and ended by physical attack
focused on adversary's means
tangible measures
hardware-driven
determined by winning battles
aim of war is to win
win by fighting better

Unconventional Image

peaceful competition
intellectual contest
waged in time
process of creation
begun and ended for moral purpose
focused on adversary's perceptions
intangible measures
software-driven
determined by peacetime preparedness
aim of war is not to lose
better to win by not fighting

cultural anthropology may be as important to success in war as intelligence

sharp competitive preparation for war by the nation is the real war, permanent, unceasing . . . the battles are only a sort of public vindication of mastery gained during the *peace* intervals."² Thus the thing called war is not real war, and it is won or lost, planned or sought, fought or avoided in the minds of those who prepare for it in periods of supposed peace. An interval of nonhostility is not benign but instead a contest in preparedness. It constitutes the essence of the demonstration of fighting capability which we call war.³ To wait for armed conflict as the test of strength may be to lose. It will be too late to amass the human capital, materiel, and moral purpose to ensure victory.

Physical versus Intellectual

If one could determine winners in advance, it wouldn't be necessary to compete in order to validate previous analysis. But there is no absolute certainty which is the reason why the stadium, track, ring, and other venues attract the wagerer. The same is true of wars. Billions of dollars are bet on the outcome of contests conducted by the force of arms. But if one knows an adversary and his orientation; understands his culture, language, and personality; grasps his frame of reference; and shapes his choices, one might influence his actions and reactions without

resorting to force. If the acme of martial skill is to subdue an enemy without fighting him as Sun Tzu suggested, then we must invest heavily in the mental and the moral aspects of war, not merely the physical. This means that intelligence, deception, diplomacy, and other measures assume a much higher priority. Knowing an adversary's culture, religion, and perceptions is as important as training, organizing, and equipping forces. Again, this is not a novel insight but it is underemphasized. Our infatuation with national technical means often eclipses more basic knowledge. Cultural anthropology may be as important

to success in war as intelligence gathered from satellite imagery.

Knowing how one's adversary—the leadership and society—sees things is paramount and may well determine success or failure in a contest. The Tet offensive, although unintended, is an example. Despite the physical defeat of North Vietnamese and Viet Cong forces, Tet represented a political and moral victory of immense proportions for Hanoi. Americans had come to believe that the enemy was incapable of launching a major attack, and subsequently many people turned against the government for lying about the conduct of the war.

Space versus Time

Most images of war are linked to destroying an enemy, controlling resources, maintaining sovereignty, and rearranging territory. Yet wars are won or lost, begun and ended, and conducted in time as well as space, with time normally the more important factor. Had Germany won a victory over Russia sooner and not had to wage a winter campaign, had American aircraft at Midway not found the Japanese just prior to turning back to their carriers, and had Israel not learned to evade SAMs in the Yom Kippur war, the outcomes of those conflicts would have been vastly different. But it is only recently and largely through the work of John Boyd⁴ that



U.S. Navy (Mike Poche)

Navy SEAL team.

we have come to appreciate the role that time plays in war and the importance of cyclical time in the nature of conflicts.

Conquest of territory has little to do with success in modern war involving technologically advanced societies. But the timing of an attack, intelligence, supplies, and fire support are critical to success or failure. Gaining or losing territory merely confirms timing. Put simply by Nathan Bedford Forrest, winning is getting there “first with the most men.”⁵ Getting there at the right time is as important as getting to the right place.

Destruction versus Creation

In order to create, one must destroy. Whether one constructs an edifice and rearranges the landscape in the process, designs a new product from previously unconnected components, or has an idea that transforms extant assumptions, relations, and insights, one destroys the present, the inherited, to create the new. Destructive deduction is a prerequisite to learning. Creation rests on a flash of insight, a brilliant extension, a novel methodology or juxtaposition of ideas; and it leads to new possibilities. Creation also requires integration, imagination, and innovation. One must go beyond the bounds of conventional wisdom in revising, recombining, and reordering concepts that lead to progress. One has to demythologize, unlearn, and forget past ways of ordering information in order to see things more clearly

and rearrange information. Such mental abilities—the capacity for improvisation—are the essence of war. Both destruction and creation are processes of war.⁶

Things don’t always proceed as planned and the consequences of losing wars or destroying more than necessary in the process are major risks in both preparing for war and the contest of arms itself. Understanding the necessity for destruction as a condition for creation is the beginning of wisdom. New ideas can rearrange the cosmos.

War, even notional war via arms races and deterrence, rests upon mental destruction and creation that must precede efforts at physical destruction and creation. Thus war, a product of the minds of men, is a product of mental destruction and creation, not merely physical destruction. It is waged for creative purposes, to bring about a new end-state fundamentally different from what went before. War is destruction but is always an act of creation. To win one must create a new set of circumstance. Success or failure in not having to fight—as well as in the conduct of war—is dependent on one’s capacity for creativity and vision. That vision may be applied by appeasement or force, intimidation or deterrence, and strategies of counter-value or counter-force. Ultimately war is a creative act, for it seeks to bring about something new, including relationships different from those which existed beforehand.

Physical Attack versus Moral Purpose

War in this century has hinged in the main on questions of moral purpose rather than mere physical attack. Although some slogans of attack (such as “Remember the Maine”) have served as rallying cries, the nature of conflict is best captured in camp songs; in the literature, art, and cinema of the home front; or in propaganda posters that mirror the moral essence of soldierly virtues such as kill or die. Images count and motivate. The significance of physical attacks in two world wars (for example, sinking the *Lusitania* and attacking Pearl Harbor) certainly cannot be discounted as causes for drawing the United States into those conflicts. But freedom of the seas, going to war to end all wars, the imperative to aid Britain, and the dangers posed by a Fascist-dominated world were issues of equal or even greater importance. U.S. involvement in

Korea and Vietnam hinged as much on the moral abhorrence of communism and need to play the role of a credible leader and ally as on prosaic self-interests or military threats. America stated that Korea did not fall within its strategic interests and that Vietnam was basically a matter of principle. The lack of clear economic self-interest in both situations made a mockery of Marxist critiques of American foreign policy. It took a dozen Security Council resolutions to convince Congress of the righteousness of liberating Kuwait and even then the vote was close, despite the threat which Iraqi aggression posed to oil supplies for industrialized nations.

Those wars ended with considerations of values and morality as much as the consequences of physical attack. In World War I, Germany sued for peace based on Wilson's Fourteen Points and in turn got article 231 of the Versailles Treaty, the infamous *war guilt* clause. Such terms and the lack of a definitive defeat on the battlefield gave rise to an era which E.H. Carr characterized as *The Twenty Years' Crisis, 1919–1937* in the

title of his book on the interwar period. At the end of World War II the Japanese held out, despite conventional destruction of their cities and two atomic bombs, until they were given

guarantees on the survival of the emperor. This was a moral issue of such great importance to Japan that it was virtually non-negotiable even in the face of total defeat.

In Korea the truce talks stalled for nearly two years over the issue of repatriating prisoners of war. In Vietnam concern for a so-called *peace with honor*, as hollow as that phrase is today, dominated policy and was coupled with the inability to wage a war that the public deemed *immoral*. The decision to halt the Persian Gulf War was at least characterized as arising out of moral concern for needless slaughter on the so-called "highway of death" and the accomplishment of the purpose for which the war had been ostensibly waged, liberating Kuwait.

Means versus Perceptions

The means of war, the capabilities, and bean counting comparative force levels are judged to be important and are what often capture attention; yet they are but the outward aspects of a much more complicated

process. Wars can occur by accident and misunderstanding or through knowing one's enemy only too well.⁸ But the perceptions of would-be adversaries are just as important as the means by which they accomplish their ends. Perception precedes capability. Realizing that one has something to fear is an *a priori* for acquiring the wherewithal to defend oneself or to attack an adversary. As Geoffrey Blainey describes the concept of an arms race:

*It is commonly seen as an intentional preparation for war, a competition which brings war closer, but it may be rather a deliberate postponing of war, an attempt to use stronger threats in preference to war. Whether it ends in war depends not on accidents and misunderstandings; it depends ultimately on the rival nations' perceptions of their power to defeat one another.*⁹

Modulating an adversary's perception is critical. Creating illusion—or misconception—so he may deceive himself is the highest act of the military art. To have him decide not to undertake a course of action that is not in your interest (by having him see it is not in his) is the penultimate use of diplomacy and force in pursuit of national objectives—subduing an enemy without fighting him. But to do so in a way that he doesn't realize it has occurred is the ultimate strategic accomplishment. Thus an important element of war is perceptions on which action is taken or avoided. Modulating perceptions is just as critical as acquiring capabilities: they should be mutually reinforcing.

Tangible versus Intangible

The traditional measures of success in war include enemy territory taken, casualties inflicted, and infrastructure and assets destroyed. These are large, fairly public events given added meaning by CNN cameras on both sides of the fighting in the Gulf War. How relevant are they? Do they represent a scorecard in ancient or modern warfare? What about intangible measures? What are they and how might they be important to strategic calculus? Such questions are worth considerable thought. The answers suggest that intangibles matter more than other measures, that commitment, loyalty, religion, zeal, and ritual are force multipliers. The Japanese code of *Bushido*, the *omerto* of mafia soldiers, the discipline of Indian warriors, the

**commitment, loyalty,
religion, zeal, and ritual
are force multipliers**



U.S. Air Force (Perry Heimer)

Iraqi tank north of Kuwait City.

privations which prisoners endure rather than reveal information to an enemy, all speak to the power of intangibles. Dedication, motivation, and courage, and their absence, are as important to success in war as quantitative measures of military strength. Morale is always the great unknown in combat. Underdogs sometimes defy rational odds and win. Commitment can be more important than weaponry, a fact that Finns, Israelis, Americans, and others have learned from experience.

The wisdom of this paradox is contained in Stalin's quip: "The Pope! How many divisions does he have?"¹⁰ None. But that did not mean that a Polish Pope couldn't contribute to the rise of Solidarity in a staunchly Catholic country. This posed a dilemma for the Soviet Union that had to be handled more gingerly by the Kremlin than if the Pope had been born in the Apennines. Manpower and weapons are important, but so are symbols and values. Causes, allegiances, and affinities are major determinants of human action. Values are the motivation for initiating, sustaining, or rallying men and

women to make extraordinary sacrifices for their beliefs. Heroism and greatness are often seen as defying the odds. The triumph is not due to faith in arms, but to devotion to principles, ideology, God, country, or Volk. Intangibles—what one will die for—motivate action, and have little or nothing to do with the physical capabilities at our disposal.

Hardware versus Software

The size of military units and relative lethality of weaponry—the standard benchmarks for comparative force level analysis—while not inconsequential, are becoming increasingly secondary. Bean counting is less relevant to winning a war than more sophisticated knowledge. Increasingly military capabilities are concerned with software rather than hardware—with those ideas, concepts, and linkages that gather, sort, disseminate, and apply information. Although an obvious analog, software in the computer usage sense is only part of the unconventional image of war. No modern military force can operate without remote sensors, computer interfaces, telecommunication linkages, or navigational and surveillance systems—all dependent upon sophisticated software.



U.S. Navy (Mark Kettenhofen)

Kurdish refugee camp
at Yekmel.

But that software is itself the product of a larger and more complex vision and architecture of a higher order of complexity. The concept of communication as a process, of data as a product, of time measured in nanoseconds, and of the systemic vision of data as crucial to action is itself a revolution made possible by technology. The information age and the ability to render hierarchies ineffective is crucial to understanding future high-tech wars. We are now approaching the military-political equivalent of the *priesthood of all believers*. No particular node or hierarchy is required to empower an agent to exercise command and control. Clausewitz's *center of gravity* gives way to a set of complex non-cooperative centers of gravity. Traditional targeting becomes so complex that it is almost impossible in an era of notebook computers and data networks that are global, redundant, and nearly instantaneous. Knowledge itself is the ultimate software, diffuse and deadly, and more fundamental than the hardware which does its bidding. Networks not weapons, brains not arms, and ideas not things become the real targets of warfare

Battles versus Preparedness

Observing the long period of relative peace in Europe during the 19th century, one historian noted: "Armed forces were not intended primarily for use in war; they were to

bring victory . . . by forcing rival states to give way without an armed encounter."¹¹ Preparing for war and deterring it, intimidating an adversary by acquiring force but not using it (an arms race, however costly), was cheaper than war and more efficient. As William James pointed out, preparedness is unceasing, sharply competitive, and determines who will gain mastery by force. But such competition is even more. If conducted skillfully, there need not be a clash of arms. The real success of preparedness is to have force and not have to use it, to intimidate an adversary by a threat of force rather than its application. The lesson is simple: a cold war is better than a hot one.

Winning versus Not Losing

It is not necessary in many cases to win a war in the traditional military sense of battlefield victory to profit politically from the encounter. Increasingly the center of gravity is public opinion. A preoccupation with fighting only short, high-tech, low casualty wars is virtually a tenet of U.S. national military strategy. It is a weakness, not a strength. The Gulf War is only the latest version of this fetish. If war lasts long enough or the casualties are high enough (like Korea and Vietnam) the adversary does not have to win militarily. Rather, he has only to not lose. The same may be said of the Gulf War where Saddam Hussein did not need to win, only survive. Ironically, he is still in power and his nemesis, George Bush, has left the scene. Depending on one's score card and priorities, it is not necessary to win militarily to win politically. Saddam crushed the Kurdish and Shiia opposition, and his Republican Guard and nuclear capabilities were not as badly damaged as originally thought. He did not win but neither was he defeated politically. The end state of the Gulf War does not look much different in many ways from the pre-war conditions of 1990. Despite being defeated decisively according to traditional score card metrics, Iraqi forces did not really suffer a crushing defeat since for the most part they did not fight. They survived and may be roughly as formidable militarily in the near-term as they were before the Gulf War.

Fighting versus Not Fighting

Preparedness is essential, but its purpose initially is to acquire weapons without having to use them. As Bernard Brodie stated, particularly for the nuclear era, "Thus far the chief purpose of our military establishment has been to win wars. From now on, its chief purpose must be to avoid them."¹² The military mind finds redundancy a proper test of efficiency. The more overwhelming the force, the fewer the casualties suffered. For democracies firepower is preferable to manpower, though totalitarian regimes reverse the equation. To a civilian efficiency is defined as having just enough to accomplish the task. Any extra is unnecessary and wasteful. To the military overkill and redundancy in the form of overwhelming force is preferred for efficiency. Better yet is the ability to deter so one will not have to fight. Intimidation may be preferred to combat unless pure punishment is the intent. Proven superiority is preferred to parity, parity is better than inferiority, and suicidal sacrifice is better than surrender. But intimidation by

amassing force, inferred if not outright superiority (through technology, force levels, commitment, and diplomacy or decep-

tion), and winning without fighting are preferable to a contest of arms.

Acquisition of sufficient force, training, and national will are prerequisites for intimidation short of war. Often it is only by demonstrating a willingness to go to war that the requirement to do so can be avoided. There is a wide variance in the way capabilities may be used to accomplish national objectives. Failing to look at the unconventional image of war may lead to defeat through a number of routes. We can divest ourselves of capabilities (means), be unclear of our objectives (ends), or be incapable of matching the ends and means. Such could well prove fatal.

From Paradox to Paradigm

In sum these paradoxes reveal what may be a simplistic and potentially disastrous view of war in terms of its costs and consequences. Competition leading to confrontation and ultimately to war is far more sophisticated than most decisionmakers and the public realize. The game is chess, not checkers: it involves

maneuver, positioning, timing, and consequences several moves ahead. One wins by convincing an adversary to concede, not by destroying him through taking his pieces from the board. War is an art as much as a science, a human and not mechanical process. As such, it is subject to the entire spectrum of human frailties. Understanding ourselves as well as our adversaries is a difficult but necessary exercise. Focusing on these paradoxes may help to prevent the self-deception of incomplete images of war and its causes, conduct, and consequences.

War is the product of human interaction. It has definable qualities and character only with reference to the way in which it is envisioned and carried out by people. There is little, if anything, purely immutable about war. All wars are unique. "War" is a linguistic and mental category like the reference to "humankind" as people; but we should not be more precise about its attributes than very low level generalizations allow. War may assume whatever form or substance that one wants to give it. It is not static but dynamic. It is not readily definable, predictable, or rule-following. Military institutions which fight wars are much more so. We should not confuse the characteristics of military forces or their capabilities with war, or the process of conflict among or between states and state-like groups.

We will never know in detail or advance the ways in which war will occur, unfold, or end. Nor can we take for granted that the assumptions which we bring to war are shared by either allies or adversaries. We can't control them, but we can shape them. We must challenge assumptions, be creative in approaching a conflict, and discard any limitations on our vision.

Writers as disparate as St. Augustine of Hippo and T.S. Eliot have reminded us that all time is present time. The past is present memory, the present is current reality, and the future is present expectation. We are tethered to the present and to an understanding of our situation in ways that are difficult but not impossible to overcome. We need not accept someone else's definition of the situation, alternatives, or preferred outcomes. Neither ends nor means are imposed

there is little, if anything,
purely immutable about war



Combat Camera Imagery (Ken Wright)

on us. We can plan and conduct war in ways that are limited only by our own imagination and creativity.

Our perception of the world may not reflect reality. We should challenge our assumptions, descriptions, explanations, methodologies, and conclusions. There are different ways to deal with problems. Finding them demands courage, purpose, and persistence. Like the near-sighted Texan who when challenged to a duel selected double-barreled shotguns across a card table as his weapon of choice, it is possible to redefine the conditions, stakes, and outcome.

When actual conflict is required we must fight better and smarter. No doubt there is a role for technological exploitation but it is not a panacea. Salvation lies in figuring out how to marshal one's talents to spar intellectually, morally, and technologically with opponents so as not to have to fight save under grave and rare circumstances. This calls for a new concept of war. Although it is not a precise analogy, the term *war of nerves* which originated in 1939 to describe psychological tactics of bluff, threat, and intimidation suggests the idea. We may destroy an enemy's will not by defeating armies or leveling factories but by convincing him that it is not in his self-interest to fight.

The decision to fight involves imposing one's vision of the world on reality, either present or future. Focusing directly on an

enemy's perceptions and will should be the target. War is first and foremost neurological, a mental process. It involves getting into an enemy's decisionmaking loop¹³ to confound his plans by creating indecision and confusion. It is, positively and negatively, a way to shape the environment—in short, to impose mind over matter.

What are the consequences of these insights? In Lenin's words, "What's to be done?" The answer is that there are profound consequences and much to be done. If these paradoxical insights are correct, they suggest a revolution in the way we define, prepare for, and fight war as well as a transformation in our understanding of its nature and role in the 21st century. War, according to Richard Szafranski, will become increasingly "neo-cortical." It will be waged without traditional weaponry. It will involve a complex of interlocking intelligence, communications, diplomacy, and psychology in continuous *cold* rather than *hot* wars, at least among advanced industrial societies. There will continue to be war caused by ethnic rivalries—bloody affairs of unremitting cruelty. But some will reject this sort of struggle and fight in other ways with different weapons. Not to heed the demands of such conflicts is to surrender by default. In terms of preparing for third wave wars of the information era as portrayed by the Tofflers,¹⁴ or the vision of "cyberwar" as conjured by John Arquilla and David Ronfeldt,¹⁵ knowing the subtleties of the unconventional image of war is essential, for the image acknowledges a condition of instability, not merely a threat, and represents a desire to shape the international security environment.

The focus must be on preparing for war so as not to fight it, at least not in the conventional sense. Doing so requires reformulating both military training and education. What happens on our playing fields—in seminars at Carlisle, Leavenworth, Newport, Montgomery, Quantico, Norfolk, and Washington—will be as important as exercises, campaign plans, deployments, and in some cases actual employment of military forces. The consequences of misunderstanding the essence of war and the necessity to prepare for it are huge.

If we succeed in the mental and moral preparation of the battlefield, most contests will not be necessary. We will have achieved



U.S. Army (Dennis Kurpius)

9th Infantry Division
in the Mekong Delta.

the acme of skill, subduing an enemy without fighting him. More importantly, he was defeated in peacetime by a strategy so sophisticated and compelling that he decided that it was not in his self-interest to challenge either the Nation or our allies by force of arms. That we caused this to happen should seem preposterous to our adversary. But it can be so if we learn to fight war in terms of our adversary's decision framework.

Weapons rarely lose their lethality. People will remain passionate in their convictions to the point of violence. States will continue to attempt to shape the international environment by force of arms. Massive hemorrhages of violent blood-letting, senseless to some and inevitable to others, will no doubt occur. We cannot prevent many of these, nor should we. But we should learn to be more capable and effective in deterring if we are able, fighting if we must, and winning if we can. Better understanding of the evolution of war and its paradoxes can lead to a new paradigm.

To deceive enemies and not ourselves may or may not always be possible, but we must try. Not doing so is an admission of incompetence or acceptance of failure. Neither is a hallmark of our Armed Forces. To ensure that they never occur, as the Chief of Staff of the Air Force argues,¹⁶ requires changing our attitude and emphasis on thinking and imagination. Such a strategy must be based on a prerequisite of mental mobilization and an acceptance of the ancient injunction of Sun Tzu as a new paradigm for the American

military: Subdue the enemy without fighting him. It may literally be the only way we can afford to compete in the future. **JFQ**

NOTES

¹ Sun Tzu, *The Art of War*, translated by Samuel B. Griffith (New York: Oxford University Press, 1971), p. 77.

² William James, *Memories and Studies* (New York: Longmans, 1911), pp. 273–74.

³ For a more complete assessment of an arms race strategy of intimidation, see Grant T. Hammond, *Plowshares Into Swords: Arms Races in International Politics, 1840–1991* (Columbia: University of South Carolina Press, 1993).

⁴ John R. Boyd, "A Discourse on Winning and Losing," unpublished briefing; though not published, Boyd's work has been cited in nearly fifty sources.

⁵ *Bartlett's Familiar Quotations*, 16th edition (Boston: Little, Brown, 1992), p. 541.

⁶ John R. Boyd, "Destruction and Creation," unpublished monograph.

⁷ Richard M. Weaver, *Ideas Have Consequences* (Chicago: University of Chicago Press, 1948).

⁸ See Robert Jervis, *Perception and Misperception in International Politics* (Princeton, N.J.: Princeton University Press, 1976).

⁹ Geoffrey Blainey, *The Causes of War* (New York: The Free Press, 1973), p. 141.

¹⁰ Attributed to Stalin by Churchill; *Bartlett's Familiar Quotations*, 16th edition (Boston: Little, Brown, 1992), p. 638.

¹¹ Raymond J. Sontag, *European Diplomatic History, 1871–1932* (New York: Century, 1933), p. 146.

¹² Bernard Brodie, editor, *The Absolute Weapon: Atomic Power and World Order* (New York: Harcourt Brace, 1946), p. 76.

¹³ Boyd's "OODA (observation, orientation, decision, action) loop" describes interaction with the environment and sensory data. The faster the cycle time in decisionmaking, the more complex the processes.

¹⁴ Alvin and Heidi Toffler, *War and Anti-War: Survival at the Dawn of the 21st Century* (Boston: Little, Brown, 1993), see especially chapter 9.

¹⁵ John Arquilla and David Ronfeldt, "Cyberwar Is Coming!" *Comparative Strategy*, vol. 2 (April–June 1993), pp. 141–65.

¹⁶ General Merrill McPeak stated, "This is the key point: the effective employment of air and space power has to do not so much with airplanes and missiles and engineering as with thinking and attitude and imagination." See "Flexibility and Airpower" in *Air Force Update* (June 1993), p. 6.

INTERNET users who want to share their thoughts on "Paradoxes of War" directly with the author may forward them to: ghammond@awc.au.af.mil

DEALING WITH ANARCHY

By FREDERICK L. WETTERING and JOHN N. PETRIE

Today historic forces are destroying or subdividing post-colonial and other nation-states for various reasons. In the 1960s the emergence of nation-states through decolonization gave rise in the United Nations to what became known as the *right* of self-determination.¹ The process drew the rights of the sovereign, in this case those of the colonial master, into question in a manner not envisioned by the drafters of the U.N. Charter.² These new nation-states emerged during the Cold War. The stability provided by the superpowers enabled them to accept responsibilities and receive benefits under the mantle of what is called the Westphalian system.

While the nation-state system can be traced to the Peace of Westphalia in 1648, the modern structure was imposed by the victors of World War II and codified in vari-



Escorting Somalis to medical care.

ous agreements, of which Yalta³ and the U.N. Charter are the best known. The result was a system of borders and states that had not met objective criteria in the past but that were now recognized. Regimes were installed with the protection of the great powers;

Summary

Removing the element of superpower coercion from the affairs of certain nation-states has brought about the collapse of many contrived boundaries drawn after World War II. The resulting demise of ill-conceived nation-states has fast become a trend. The United States risks being bogged down if it attempts to prop up disintegrating states. Yet policymakers as well as the public seem reluctant to watch has-been states unravel. The plight of these states also appeals to humanitarian instincts, suggesting that the cost of reordering the political map of the world could be high. Though future involvement is likely to be carried out by coalitions, inevitably the United States will be the senior partner. Politico-military options on where, when, and to what extent to intervene will require both military planners and commanders to come up with the right force mixes for the new world disorder.



U.S. Air Force (Cokran)

Felling the Berlin Wall
in November 1989.

pseudo-states with no claim to internal political legitimacy were maintained directly or indirectly by threats of intervention. In addition, historical realities were often ignored vis-à-vis the representative nature of the regimes and the delimitation of national boundaries. Some states have recently collapsed because the long-accepted definition of a nation-state—an identified population, recognized boundaries, and the authority to exercise power over enclosed territory—was not rigorously applied by the international community on admitting them to the system. Such pseudo-states are unable to confront internal contradictions of conflicting religious, ethnic, or racial identities.

Three factors that suppressed internal contradictions until recently disappeared. The most important was the Cold War during

which the superpowers recognized new claimants to statehood to quickly gain influence over *de facto* regimes that sought legitimacy. A second, less important but still vital factor was the concurrent loss of influence of metropole countries over their former colonies.⁴ The third was support from the international system which was essential to the internal stability of governments and economies in the new states, support that derived from the first two factors. Also, the international consensus for maintaining the *status quo* under rubrics of territorial integrity and no external intervention was severely eroded. While the international community has not abandoned them, exceptions to these rules of conduct have markedly increased.

International Security and Coalitions

The implications of the sea change in the nation-state system for national security strategy are profound. Current world affairs suggest that any American attempt to maintain the *status quo* or *status quo ante* given the accelerated collapse of many nonviable states and regimes is likely to be ineffective and even quixotic. The breakdown in the old order of nation-state legitimacy creates opportunities for mischief and aggrandizement by those states with a penchant for such behavior. States with a power projection capability will be able to take more opportunistic actions. Even a narrow view of national interests leads to the conclusion that American leaders will eventually be forced to authorize further interventions.

As problems arising from state delegitimization threaten other nation-states—such as civil war, genocide, starvation, and the internationalization of conflict as well as external intervention—the world will expect the United States to provide the necessary leadership and resources to resolve the problems. Experience indicates that such expectations can easily be translated by America into a mandate for action. Leaders of both political parties call for continuing the U.S. leadership role in the world. Once seized by foreign humanitarian concerns, public opinion almost demands that national leaders intervene to rectify the problems. However, there are serious limitations on such exercises of power. There are resource constraints and international legal and political limitations caused by a lack of consensus and willingness to use and abide by conflict resolution procedures. And when the potential cost of such involvement becomes real, public enthusiasm for action can rapidly turn into a call for withdrawal and thereby define a policy failure.

To minimize the lack of consensus, of the infrastructure for peacekeeping and peacemaking in international organizations, and of dedicated resources, the United States must build coalitions in response to crises. Including forces from other nations not only creates international acceptance, it also can reduce overall costs. The efficacy of coalitions suggests using international organizations like the United Nations. But there should be no illusion that U.N. action is *the*

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answer in all or even in most situations. U.N. action requires consent, or at least acquiescence, of all permanent members of the Security Council. The nature of some issues simply will not permit this course of action. While a veto may not have been evoked of late, that does not mean it will not, or should not, be used. Furthermore, certain situations—especially self-defense or collective self-defense—must be dealt with immediately and can be endangered if military action is delayed by putting it on the Security Council's agenda. The Charter recognizes and accommodates this reality. Coalition-building, at least for now, must be an *ad hoc* diplomatic tool which if increasingly desirable is not always available. The United States will have to plan the response and bring its coalition partners along if diplomacy permits.

Resource constraints and the escalating cost of intervention can be met and ameliorated only in part through diplomacy. The more than \$40 billion raised by the Bush administration to finance Desert Shield/Desert Storm, albeit a skillful accomplishment, is an exception. More commonly the United States has failed to meet its U.N. obligations on time. Thus the Secretary General is forced to juggle the books and pass the hat to pay for peace

operations. National priorities are inescapable and may well limit the frequency and extent of participation in coalition and unilateral operations. This demands significantly greater scrutiny of situations calling for U.S. involvement.

Strategy and Missions

Domestic and international pressures may shape the situation, but they need not be adverse or impossible. The answer is bringing appropriate resources to bear where they can succeed and, at the same time, enjoying and sustaining domestic and international support. Where that is not possible, intervention will not improve the situation in the long term. Some capabilities earmarked for funding have a demonstrable utility for these circumstances, including maintenance of highly-skilled core forces; forward deployed land, sea, and air forces;

improved skills and equipment for rapid deployment; more flexible and fungible forces; and high-tech and general purpose force supremacy over any adversary.

It is extremely difficult to discern measures of effectiveness for the unknown, especially if planners cannot establish a credible worst case and the budget militates against such methodology. One approach is to measure the utility of available military capabilities against the most likely types of missions when categorized in terms of response timeliness, that is, operations in which success requires rapid response by combat forces, rapid response and sustained support of combat forces, or commitment and support of forces over a protracted period.

Rapid response operations are measured in hours or days and have objectives which can be accomplished by surprise or overwhelming force. Recent operations in Grenada (1983), the drop of airborne forces into Honduras to dissuade the Sandinistas from violating Honduran sovereignty (1987), and Panama (1989) meet such a definition, as would noncombatant evacuation operations (NEOs) like evacuating American embassy and other noncombatant personnel from both Monrovia and Mogadishu (1991). Another example is the Franco-Zairian combined air drop on Kolwezi to rescue hostages during the Shaba II incursion of rebel Katangan forces from Angola (1978).

The Armed Forces have a successful track record in recent rapid response operations which suggests that their planning and tactical capabilities are generally sound. Other prerequisites for success are important. Such operations require good intelligence about the situation on the ground. They also require objectives located on terrain and geography which accommodate access and are suitable for the forces tasked. In addition, these operations must strive for simplicity of execution; that is, the objectives must be limited in number and easily understood and attained.

Prerequisites are obvious when they are ignored. One incomplete intelligence prerequisite was the American raid on the Song Te prison in North Vietnam (1970). Geographic prerequisites are likewise important. Objectives have to be within tactical reach of air

collective self-defense can be endangered if military action is delayed by putting it on the Security Council's agenda

or sea forces and located on reasonable terrain capable of landing helicopters or C-130s. The aborted Iranian hostage rescue mission (1980) stretched—or even exceeded—reasonable geographic constraints.

Dragon Rouge was an operation which violated simplicity. Americans supported Belgian paratroopers in a drop in the Congolese (Zairian) city of Stanleyville (Kisangani). The objective was to rescue hostages held by some particularly savage rebels. The airdrop was combined with a ground force column of allegedly CIA-supported mercenaries, V Commando Brigade under Mike Hoare. The drop was not close enough to where the hostages were being held and the mercenaries did not arrive in time at the target area. Some hostages were executed by their rebel captors while others, including U.S. diplomats, escaped in the confusion.⁵

Operations requiring sustained support, particularly in the Third World, are subject

to the same constraints, but there may be flexibility in longer operations. The geographic factor remains vital. American campaigns

in Italy and Korea demonstrate the challenges of terrain, and Indochina serves as a reminder of the challenges inherent in jungles and tropical rain forests. These historical cases indicate that stiff resistance can extract a tremendous toll, take up valuable time, and negate many advantages of general purpose forces (such as the relative speed of deployment, mobility, air superiority, and superior firepower). When reduced to the same tactics which indigenous forces use, such operations involve costs no rational commander can seriously entertain without extreme consequences arising from a failure to undertake them.

The importance of terrain and geography was proven at Gallipoli in World War I. More recently, in the British campaign in the Falklands conflict (1982) geography negated most British advantages and—without the benefits of extraordinary levels of foreign support and Argentine bad luck—could well have doomed the expedition.

While complex missions can be carried out, objectives nonetheless must be made explicit rather than implied. The Somalia mission fails this test. While it initially had a simple objective of creating a secure environment for famine relief, the mission incurred a number of implied tasks to include eliminating hostile threats, disarming or deterring combatants, breaking up tribal militias, and even the obligation of providing or establishing police, judicial, and administrative functions once the area was pacified. Further, these tasks cannot be achieved without resolving internecine struggles which are part of the Somali culture. Many of these tasks eventually were made explicit. Finally, the mission lacked a well defined, broadly agreed on end game and was undertaken with the assumption of a time line of two months to which only the United States had agreed in terms of an endpoint. The consequences of the Battle of Mogadishu in October 1993—over nine months after the initially anticipated departure of U.S. troops—and the subsequent congressional mandate for an early pullout demonstrate the challenges of sustaining domestic consensus for humanitarian missions where no broadly understood national interest is involved.

The Somalia situation called for a *new*, or in fact rediscovered, set of military roles in the American inventory. These roles will undoubtedly be needed for protracted operations in Third World delegitimized areas. For missions of duration the military must develop what can be called *restabilization* skills—in concert with civilian agencies and nongovernmental organizations (NGOs)—to create constabularies, judiciaries, and governments made up of indigenous personnel. Earlier in this century the Armed Forces had extensive experience in conducting such missions. Then it was called colonial, or more accurately, military occupation. Such operations are defined in law⁶ that indicate responsibilities assumed by nations that place military forces in the position of acting for a sovereign in his territory. Marines did this in Haiti, the Dominican Republic, and Nicaragua as did the Army in the Philippines. The Armed Forces also performed similar missions in liberated Germany, Austria, and Japan, and more recently took on the same kind of missions, albeit briefly, in Grenada and Panama. Military police dealt

Somalia called for a *new*, or in fact rediscovered, set of military roles in the American inventory



U.S. Air Force (Dean Wagner)

**Military police securing
Arraijan, Panama.**

with an anarchic situation in Operation Hawkeye to restore order on St. Croix after hurricane Hugo.⁷ Special Operations Forces (SOF) in Panama used psychological operations (PSYOP) and civil affairs (CA) units to reconstitute the government and establish a police force under civilian control during Operation Promote Liberty.⁸

In past military occupations local populations have been screened (as in de-nazification) and undesirables barred from recruitment. U.S. military police, judge advocate general, civil affairs, administrative, and support personnel have organized, trained, and supervised new infrastructures while combat forces provided the requisite stability to permit less glamorous but essential military nation-building functions to be carried out.

While the Armed Forces have the skills, their capabilities are no guarantee of success. That might require tasking forces and a degree of authority which is difficult to obtain under law. Forces employed under the aegis of the United Nations tend to be constrained to fulfill only those missions which can command an international political consensus (the Security Council mandate expressed in a resolution). Indeed, Somalia raises serious questions about the role of the military in anarchic situations. The sight of heavily armed Marines being confronted by swarms of Somali boys intent on mischief points to the fact that sometimes there are too many shooters and too few nation-builders. Military police are trained and equipped to handle

such situations. Beyond doubt, graduates of the U.S. Army Military Police School are better suited than Marines for patrolling the streets of Mogadishu and recreating a Somali constabulary.

This is not to say that the Marines were not the best qualified force in the world to cross the beach and provide the necessary guarantees for military police to go about their duties. In fact U.S. forces in Somalia succeeded at almost every turn. But the mission was prolonged and also evolved to a point where the expertise needed was not found among the forces originally deployed. Nonetheless, remarkable accomplishments were recorded by those lacking a clear policy mandate, leaving them with an incomplete plan, and potentially without the most capable forces to carry out the tasks. It is fortunate that general purpose forces have proven to be so adaptable.

Why then are the experts not there? Obvious political and mission-planning lessons can be learned from the Somali case of state delegitimization and collapse. They include defining political tasks as thoroughly as possible prior to setting out; providing military police in urban areas as soon as areas are secured; and deploying SOF, intelligence, engineer, medical, legal, logistic, and other combat support and combat service support personnel immediately after an anarchic situation. If specialists from the Department of State, Agency for International Development, U.S. Information Agency, and Central Intelligence Agency are required, they should be introduced under the aegis of the appropriate unified command if the CINC takes control of the area in question.

Unfortunately, forward deployment, mobility, and rapid response produce situations where bias exists towards dispatching and retaining shooters at the expense of combat support elements. Shooters alone cannot establish the appropriate level of control or the environment necessary for a mission which remains successful even after their withdrawal. Further, their flexibility and—in the case of the Marines—their broad range of capabilities at the organizational level tempts military and civilian decision-makers to have Marines handle short-term operations on their own. Deploying a greater

number of more diverse or specialized units involves considerable expense and potential domestic and international political costs. Consequently, balancing talent among the forces on the scene—especially the so-called tooth-to-tail ratio—can quickly become inappropriate if missions require or evolve into entirely different situations.



Combat Camera Imagery (Efrain Gonzalez)

Caring for victim of mortar attack in Sarajevo.

Inappropriate force structure is even more likely in U.N.-led or sanctioned situations. The initial tasking in such instances is generally the lowest common denominator of the various political assessments and political wills that come to bear on a Security Council decision to act or authorize action. The idea of accepting responsibility for what constitutes a military occupation of a member state will be very hard to sell indeed. Domestic response will not be receptive either. Nonetheless, this is becoming clear to planners. One report suggests the lesson may have been learned from the plan for an unexecuted intervention that provided for "engineers, military police, and medical units . . . to improve Haiti's military, police force, medical services, and communications."⁹ But in that case a lack of shooters to kick in the door made the action both tactically impossible and politically unthinkable (albeit at the eleventh hour).

There remains the problem of the availability of such anarchy-appropriate forces. Much of the capability for such vital specialties lies in the Reserve components. Right-sizing will threaten to increase that balance. It is

very difficult for the National Command Authorities to recover these specialists in Somalia-type situations where there is no domestic political consensus to support the call-up of Reserve and Guard units, which is always a politically risky move for a President.

To illustrate this problem it should be noted that over 75 percent of PSYOP and 97 percent of CA capabilities, 50 percent of the military police assets, and 50 percent of the Seabees are in the Reserve components.¹⁰ Air National Guard C-130s demonstrated an ability to support the original feeding operation in Somalia and the U.N. demobilization effort in Angola, both in 1992. The effort during Desert Storm to solicit volunteers was an inspired attempt to ease this problem, but in the last analysis the solution lies in the composition of forces available for contingencies.

A logical rejoinder to the above strategy might be why not leave it to the United Nations or some other transnational body to set up and administer such territories; recruit police, judicial, and administrative supervisory personnel; and take responsibility for such a program. There are two reasons why the American military must rediscover this capability: the professed policy of working with and through the United Nations by exercising leadership in these situations means that the Armed Forces will frequently form the leading elements of such organizations. Further, the U.N. track record on administration of such operations is generally poor. In any case, such operations under U.N. authority require Chinese and Russian agreement or acquiescence (surely no one can expect the level of concurrence from the Russians and Chinese developed in the Gulf and Somalia operations to continue indefinitely).

Another possible argument against these proposals might be that any force so established by the United States may be resented by local inhabitants and possibly overthrown upon departure of U.S. forces. To overcome this possibility better use must be made of traditional restabilization skills. On the other hand consider the unfortunately far more likely consequence of the entire U.S. intervention effort being undermined upon the departure of U.S. forces should such a strategy not be employed. To argue that many foreign forces or a collection of U.N. forces from smaller states can assume this responsibility is unrealistic.

The initial forces which enter someone else's territory should have unit cohesion, common tactics, ease of communication, good mobility, and available air and sealift. Further, lift must be responsive to tasking and be able to support both opposed and administrative insertions of forces. Today those capabilities—coupled with the political will to become involved—do not exist in many places outside of the United States. Political will here depends heavily upon public opinion

initial forces should have unit cohesion, common tactics, ease of communication, good mobility, and available air and sealift

and is exceptionally difficult to sustain in the face of unanticipated costs or losses.

Each reversal during one of these situations moves

the threshold for consensus further away. Activating the Reserve components to deploy a successful force also becomes more difficult politically. This is not a design for success. When the national interest is engaged decisionmakers clearly have a better argument but the center of gravity for these operations has obviously shifted to U.S. public opinion.

Anarchy created by breakdowns in nation-state sovereignty is likely to compel intervention to implement U.N. decisions, sometimes by force. This will probably be done by coalitions, albeit with the United States in the lead. Current military strategy is well suited for such contingencies. In anarchic situations the Armed Forces must conduct restabilization operations with skill. While combat forces may establish temporary order, without the addition of combat support and combat service support personnel like military police, order will vanish as combat forces are withdrawn. This will almost assuredly be the case in Somalia. It is unlikely that the United Nations or other international organizations can provide such restabilization skills in a timely or effective manner unless they build on the structure already possessed by the U.S. military.

It is imperative that cadres involved in restabilization, many of whom are Reservists, be available on short notice. Current law inhibits the National Command Authorities from calling up Reservists with vital restabilization skills in less than brigade size-units or in numbers over 1,000.

Regrettably, the state of the world is such that many of these arguments will soon be put to the test. National and military strategy underscore the importance of regional stability to American interests. Recent calls for U.S. involvement have been judged as not related to those interests. Nevertheless, they demonstrate the importance of sending the right force with the right support to similar situations when national interests are at stake. Such situations lie ahead. Now is the time to prepare those forces which will be needed for future missions and to streamline the requisite support to carry them to success.

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NOTES

¹ General Assembly Resolution 2200 (XI session) of December 16, 1966; see *General Assembly Official Record*, vol. 23, supp. 16 (A/6316), pp. 49–52.

² The U.N. Charter, and annexed Statute of the International Court of Justice, entered into force on October 24, 1945.

³ For the Declaration on Liberated Europe and related matters, see communique signed at the Yalta Conference (February 11, 1945), in U.S. Department of State, *Foreign Relations of the United States, Diplomatic Papers, The Conference at Malta and Yalta* (Washington: Government Printing Office, 1945), pp. 968–87 (especially, pp. 977–78).

⁴ For example, see Francis Terry McNamara, *France in Black Africa* (Washington: National Defense University Press, 1989), pp. 207–08, on French retrenchment from Africa beginning in 1984.

⁵ Fred E. Wagoner, *Dragon Rouge: The Rescue of the Hostages in the Congo* (Washington: National Defense University Press, 1980).

⁶ It is argued that the law of war requires the United States to administer territory which its forces enter absent a government capable or willing to exercise the sovereign's responsibilities—or when operational exigencies do not allow local government to meet them. Restabilizing any territory after intervening where anarchy might otherwise reign implies moral and legal as well as pragmatic considerations. Such situations create similar responsibilities which face an occupying force once it defeats or otherwise bars indigenous authority from providing for civil order and the requisite infrastructure. See chapter 6 of Department of the Army Field Manual 27–10, *The Law of Land Warfare*.

⁷ Briefing by MG Charles A. Hines, Commandant, U.S. Army Military Police School, Fort McClellan, Alabama, August 10, 1992.

⁸ U.S. Department of Defense, Special Operations Command, "United States Special Operations Forces: Posture Statement, 1993."

⁹ See, for example, *Inside the Pentagon*, April 8, 1993, p. 1.

¹⁰ John M. Collins, "Roles and Functions of U.S. Combat Forces: Past, Present, and Prospects" (Washington: Congressional Research Service, January 21, 1993).



U.S. Navy (Daniel G. Lavols)

REVOLUTIONS in Military Affairs

By JAMES R. FITZSIMONDS and JAN M. VAN TOL

In the early morning hours of the 15th of May, 1940, Prime Minister Churchill received an urgent telephone call from French Premier Reynaud. "We are beaten," Reynaud said in distressed English, "we have lost the battle." It had only been five days since the German army launched a broad offensive into France and the Low Countries. "Surely it can't have happened so soon," Churchill replied, incredulous at the rapidity of the defeat.¹ Six weeks later, France formally surrendered.

Blitzkrieg has been termed a revolution in military affairs or RMA—a fundamental change in the nature of warfare that the *Wehrmacht* used to inflict a rapid, stunning defeat on a qualitatively comparable, numerically superior force. Many factors contributed to the Allied collapse, but the essence of the German victory was the innovative operational exploitation of systems common to both sides: the tank, airplane, and radio. Speed, surprise, and deception,

Summary

Technological change may revolutionize warfare in the next century. Nations which can exploit emerging technologies through innovative operational doctrine and organizational adaptation may achieve significant gains in relative military effectiveness. In the past, America has had sufficient time to adapt in the midst of war to military revolutions that developed in peacetime. However the proliferation of technology may no longer afford the luxury of observing developments from the sidelines. The role of the military in developing concepts to exploit emerging technologies will be crucial in order to stay ahead of competitors. Junior officers in particular must be encouraged to think about the implications of the emerging revolution in military affairs.

combined with superior tactical and operational performance, gave the Germans a degree of relative operational superiority to which the Allies failed to adapt in time.

While nations have always pursued innovation to increase military effectiveness relative to potential adversaries, accelerating technological change, coupled with associated operational and organizational changes, has altered the character of war more profoundly in the last two centuries than ever before. The railroad, telegraph, steam-powered ironclad, and rifle caused dramatic increases in military effectiveness between the Napoleonic wars and the American Civil War. Similar changes accompanied the introduction of the machine gun, airplane, and submarine prior to World War I. By the outbreak of World War II the internal combustion engine, improved aircraft, radio, and radar made possible revolutionary leaps in long-range, highly mobile operations such as *Blitzkrieg* and carrier air strikes. The development of nuclear weapons at the end of World War II and their subsequent mating with ballistic missiles marked perhaps the most profound revolution in military affairs to date.

The stunning victory of the Armed Forces in the Gulf has stimulated increasing discussion of the possible emergence of a new RMA, which will again lead to major changes in the nature of conventional warfare. Such a revolution may be driven by the rapidly developing technologies of information processing and stealthy, long-range precision strike.

The following discussion has two purposes. The first is to present the question of an emerging revolution in military affairs and suggest why it may be significant. The second—and perhaps more important—is to encourage the readers of *Joint Force Quarterly*, particularly junior officers, to think and write about the explosive technological advances of our day and their implications for the way militaries will be organized and operate in the future.

What Are RMAs?

Whereas we had available for immediate purposes one hundred and forty-nine first-class warships, we have now two, these two being the Warrior and

her sister Ironside. There is not now a ship in the English navy apart from these two that it would not be madness to trust to an engagement with that little [American] Monitor.

—*The Times* (London), 1862²

It is difficult to precisely and consistently define the term *revolution in military affairs*, though it is generally clear *ex post facto* when something of a revolutionary nature has occurred. An example of an RMA might be the universal change across warfare driven, for instance, by the development of the airplane or atomic bomb. Another sort might be the conversion from wooden sailing ships to steam-powered armored hulls in the latter half of the 19th century. Still another might be a consequence of major social or political upheaval, such as the French *levee en masse* which dramatically altered the scale of land warfare. One feature common to each, and perhaps the essence of an RMA, is not the rapidity of the change in military effectiveness relative to opponents, but rather the magnitude of the change compared with preexisting military capabilities.

Technological advances are usually a requisite for an RMA, but technology alone is not enough to achieve leaps in relative military effectiveness. As illustrated by *Blitzkrieg*, profound change only takes place when new concepts of operations incorporating new technologies are developed. Often this will require or result in new military organizations which reflect the new conditions.

History suggests three common preconditions to the full realization of an RMA:

▼ *Technological Development*—Since the Industrial Revolution there has been a stream of new technologies which intentionally or otherwise have had military applications. For example, development of a powerful, reliable internal combustion engine made possible the self-propelled vehicle and airplane. Mere invention, of course, is not enough; the new technologies must also be developed into practical military systems (or systems of systems as technologies become ever more complex). While the tank was introduced at Cambrai in 1917, it was years before it was reliable and robust enough to spearhead rapid ground advances.

▼ *Doctrinal (or Operational) Innovation*—To fully exploit the potential of new systems, operational concepts incorporating and integrating the new technologies must be developed into coherent doctrines. Military organizations must also train to use and interactively improve them. After the tank's introduction into combat, it took more



Experimental stealth ship *Sea Shadow* in San Francisco Bay.

U.S. Navy (George F. Champagne)

decades of doctrinal experimentation and development to produce *Blitzkrieg*.

▼ *Organizational adaptation*—The most profound changes require significant bureaucratic acceptance and institutional change. The success of *Blitzkrieg* required not only the technology of the tank and a coherent doctrine of armored warfare, but also substantial organizational and even cultural changes which were reflected in the new combined arms operations centered on the German Panzer division.

It is the synergistic effect of these three preconditions that leads to an RMA. Indeed it is the increasing recognition of the importance of the doctrinal and organizational elements that has led to the term *revolution in military affairs* gaining currency over expressions such as *military-technical revolution* which implied that technology was the predominant factor.

Perhaps counter-intuitively, revolutionary changes do not generally occur during war. The fact of change may be most dramatically manifested in combat, but historically the most profound RMAs are peacetime phenomena (the atomic bomb may be the exception that proves the rule). For example, the transition from wooden sailing ships to steam-powered armored hulls in the last century was one of the more dramatic revolutions in military history, yet there were no major wars at sea in this period which underlined that fundamental change.

Militaries are driven to innovate during peacetime by the need to make more efficient use of shrinking resources, by reacting to major changes in the security environment, or by recognizing the possible implications of

prolonged peace provides the time and resources for experimentation

M1A1 Abrams in Saudi Arabia.



U.S. Army



DOD

F-117 Stealth fighters.

new inventions or techniques for their art. Prolonged peace provides the time and resources for experimentation. Equally important, this is the period of least risk if wrong choices are made. Consequently, long periods without major wars have generally resulted in the greatest changes.

Full exploitation of emerging technologies can span decades. The lengthy development of *Blitzkrieg* was noted earlier. Similarly, it took time to move from Kitty Hawk to strategic bombers and carrier task forces. The commercial analog is instructive; for instance, it took business years to fully exploit the telephone's potential or, more recently, exponential increases in computing power.

Is Another RMA Emerging?

In the early 1980s the Soviets noted that "the emergence of advanced non-nuclear

technologies was engendering a new *revolution* in military affairs."³ They were particularly interested in the "incorporation of information sciences into the military sphere" and in the idea of a "reconnaissance-strike complex."⁴ The events of the Gulf War convinced them of the validity of their hypothesis.⁵ Desert Storm indeed suggests that a new RMA is emerging.⁶ It may have provided a glimpse of a major transition to a different type of warfare heavily based on information processing and stealthy long-range precision strike weapons. What are some of the possible implications of this transition?

Information processing has always been part of warfare. In the future, however, it may be central to the outcome of battles and engagements. If so, establishing information dominance over one's adversary will become a major focus of the operational art. Information warfare is still an ill-defined term. However, it might encompass a range of concepts, including but not limited to:

- ▼ comprehensive intelligence regarding an enemy's military, political, economic, and cultural "targets" while denying the same to him
- ▼ disruption/manipulation of enemy C³I systems and defense of one's own
- ▼ space-based information usage and denial
- ▼ sensor-to-shooter data fusion
- ▼ flexible information/intelligence data bases
- ▼ use of simulations to support operational decisionmaking.

To the extent these notions have operational validity, they may also drive significant organizational changes.⁷

Stealthy long-range precision strike may become the dominant operational approach. By reducing the strike timeline from target sensor-to-shooter by orders of magnitude while increasing the effectiveness of weapons in terms of range, target discrimination, and lethality, such systems conceivably could provide conventional forces the ability to rapidly destroy an opponent's critical military targets at minimal cost and with little collateral damage. Some proponents even believe this approach extends to the destruction of an enemy's strategic centers of gravity.

There may well be other technologies, employed operationally in ways as yet unforeseen, that emerge to dominate future wars and preparations for them. Use of advanced simulations may greatly reduce cost and increase the speed of various military



Navy F/A-18C.

there is a substantial cost for failure to recognize revolutionary changes in warfare

activities. Commercial technologies such as microelectronics, telecommunications systems, space systems, nanotechnologies, robotics, and biogenetics, whose potential is only starting to be explored and which will be widely available, may also have enormous implications for military effectiveness. Moreover, these technologies and their operational employment may radically affect the whole gamut of military affairs, from combat operations and training to logistics and deployment practices to optimizing the responsiveness and flexibility of the industrial base.

In thinking about the proposition of an emerging RMA, it may be instructive to compare the present with the interwar years. By 1918, systems like planes, tanks, and radios were considered state of the art and represented quantum leaps over 1914. Yet the combat power represented by these same systems in 1940 was orders of magnitude greater than in 1918. The promise they held in 1918 only became decisive after two decades of



U.S. Navy (Jon Guzman)

USS Monsoon, a new class of coastal patrol ship, off the San Clemente Islands.

Joint Combat Camera Center

technical improvement, doctrinal development, and organizational adaptation. Could the *modern* systems such as stealth aircraft, cruise missiles, and smart weapons, the concepts of operations that employed them,

and the military organizations of the Gulf War be the "1918" equivalents in the context of a future "1940" war?

Why Do RMAs Matter?

RMAs matter principally for two reasons. First, being second best may lead to catastrophic loss in future wars. Since the only objective benchmark for determining the relative effectiveness of forces (that is, success in combat) is unavailable in long periods of peace, there is great potential for asymmetries in combat effectiveness between militaries, observable only when the next war has occurred. For example, the British and French experimented with tanks and aircraft in the interwar period, but their effectiveness was disastrously inferior to that of the *Wehrmacht*. However, few observers would have guessed at this reality in 1939. Obviously, there is a substantial cost for failure to recognize revolutionary changes in warfare before an opponent does.

Secondly, as equipment life cycles, especially for platforms, steadily grow to encompass decades (B-52s were designed in the late 1940's, carriers last 40-plus years), many of the principal weapons systems of 2025 will likely be designed and built in the next

few years. Since militaries are stuck with force structures they choose for long periods (though designs allowing for frequent system modifications ameliorate this to some extent), it is more crucial than ever to think now, in peacetime, about the impact of possibly revolutionary changes in the nature of war and about what will matter in winning wars in twenty or thirty years. Paradoxically, however, this may be more difficult even as it becomes more important.

Today, with the United States arguably the only superpower for the foreseeable future, one might ask why this issue is especially pressing. Replicating the U.S. force structure is clearly beyond the reach of all but a few other nations, even in the long term. This may not, however, be relevant. Even small- to medium-sized powers may be able to exploit specific technologies for significant military leverage in certain areas. Fifty years ago the Japanese fielded a highly capable military, technically advanced in selected aspects, which was more than a match for American forces during the early years of the Pacific war. Yet Japan's economy on the eve of World War II was maybe 15 percent the size of this Nation's. A more serious possibility is the emergence of a major competitor or coalition to seriously challenge the United States. Such a military peer might employ the same critical technologies which will serve as the basis of our Armed Forces and thus pose a direct threat to American vital interests.

The current rate of change suggests that *state of the art* in any technological context will be an extremely short-lived phenomenon, particularly with respect to the technologies that were key to the success of Desert Storm: space systems, telecommunications systems, computer architectures, global

information distribution networks, and navigation systems. Future revolutions will occur much more rapidly, offering far less time for adaptation to new methods of warfare. The growing imperative in the business world for rapid response to changing conditions in order to survive in an intensely competitive environment is surely instructive for military affairs. Corporations repeatedly have to make major changes in strategy to accommodate the full implications of technologies which have already existed many years.

In the military context, as with the tank, aircraft, radio, and other systems in 1918, the key technologies are out there and available for many nations to exploit. This places a premium on remaining at the forefront in the identification and implementation of the developments which will maintain, if not increase, relative military effectiveness well into the next century. Doing so can only come from encouragement of innovative thinking about the relevant questions.

Innovative Thinking

*Stationed at Camp Meade, Maryland just after World War I, Dwight Eisenhower and George Patton both began articles for military journals describing their experiments utilizing new doctrine for the employment of tanks. "Then I was called before the Chief of Infantry," Eisenhower later recalled. "I was told that my ideas were not only wrong but dangerous and that henceforth I would keep them to myself. Particularly, I was not to publish anything incompatible with solid infantry doctrine. If I did, I would be hauled before a court-martial."*⁸

Today's breathtaking technological achievements notwithstanding, developing the concepts of operations that incorporate new technologies and organizations to permit effective exploitation of new capabilities is even more critical than acquisition of the technologies themselves. Indeed, the most compelling lesson from the 1920s and 1930s is that some militaries were much better than others at developing and implementing successful concepts and also making the organizational changes to fully exploit new technologies.

Innovation is not necessarily or even primarily a function of budget. Many of the interwar innovations came at a time of low budgets and small forces. *Blitzkrieg* was developed while Germany was tightly restricted by the Versailles Treaty. American carrier naval aviation developed under a



GENERAL HEINZ GUDERIAN
(1888-1954)

Between 1914 and 1918 [Guderian] served mainly with the staff on the Western Front. In 1922 his task was to help develop the mechanization of the German army: by 1929 he had become convinced that tanks in all-arms, armoured (*Panzer*) divisions would in the future dominate land warfare. With Hitler's support, but obstructed by traditionalists, he promoted the creation of the German armoured forces which spearheaded the invasion of Poland in 1939.

— From *The Penguin Encyclopedia of Modern Warfare*
by Kenneth Macksey and William Woodhouse

strict arms control regime in a fiscally constrained environment. The amphibious doctrine of the Marine Corps—which J.F.C. Fuller characterized as probably “the most far reaching tactical innovation of the war”—originates in the conceptual work of Major Earl H. Ellis in 1920 under the visionary tutelage of the Marine Commandant, Major General John A. LeJeune.

Why some innovations succeed and others fail, and why some militaries innovate rapidly while others languish, are matters for debate.⁹ History provides no clear guidance on overcoming institutional resistance to change and no final explanations of the relative roles of civilians, military mavericks, or visionaries. However, in one form or another, the military role in implementing innovative ideas is crucial. As one observer noted, “many important wartime technical innovations such as the tank, proximity fuse, and microwave radar, and organizational innovations such as new doctrines for submarine warfare and strategic targeting functions for American bombers, were pursued at the initiative of military officers or with their vigorous support.”¹⁰

What may be key to “winning the innovation battle” is a professional military climate which fosters thinking in unconstrained fashion about future war. This is in part a function of having leaders on the order of a LeJeune who will encourage innovation and—subject to reality checks—actually test and implement innovative ideas to maintain a preeminent military position.

Patriot missile system.



Joint Combat Camera Center

The other critical requirement is the ability and willingness of relatively junior officers who are now out in the field and fleet to think about the future. As younger people more recently out of school, they are likely to be in closer touch with new and emerging technologies which have potential military application. As operators, they are aware of the operational and organizational problems that they must deal with daily and hence are prime clients for possible solutions. Finally, they will also be the senior leaders who must win the wars twenty to thirty years from now.

Unfortunately, these same officers have published little to date in professional journals on the idea of an RMA, nor have RMAs been a focus of study at the service colleges.¹¹ There may be several reasons for this. Arguably the present force drawdowns put such a premium on preserving what exists that discussion of concepts which might threaten current programs is effectively stifled. Then organizations that have had recent success, as has the U.S. Armed Forces, probably feel less impetus for institutional change than if they had been less successful. And lastly, countries have historically not had good records of military innovation in periods such as the present when they cannot envision a well-defined military problem as the focus of planning and acquisition.

The failure of military officers to think about potentially crucial ideas such as an emerging RMA can carry with it the seeds of defeat, not least because the absence of a significant military contribution to the discussion of future wars will result in the subject being restricted to academics and think tanks. Although the latter have important ideas to bring to the table, inherently they can neither be as intimately familiar with military problems as professional officers nor as effective in implementing innovation from within the services.

Journals such as *JFQ* should play an important role in giving exposure to new ideas. Military officers, especially junior ones, should contribute views on emerging RMAs, or at least evaluate the implications of the stunning changes occurring today. As a starting point, the authors suggest the following broad questions:

▼ How will the emerging RMA change the nature of warfare in the next several decades?



BRIGADIER GENERAL WILLIAM ("BILLY") MITCHELL
(1879–1936)

... by September 1918 [Mitchell] was commander of a Franco-American air force of 1,500 machines. He used the force in mass (sometimes with formations of 200 aircraft) in the Saint-Mihiel battle and the Meuse Argonne offensive. By then he was a fervent champion of airpower, proposing the parachuting of airborne infantry behind the German lines in 1919, and of strategic bombing by independent air forces on the British model.

— From *The Penguin Encyclopedia of Modern Warfare*
by Kenneth Macksey and William Woodhouse

▼ What military applications do burgeoning commercial technological developments have?

▼ What implications do new technologies have for concepts of operations? For the way the military is organized?

▼ How might potential adversaries exploit the military revolution to America's detriment?

▼ What should the U.S. strategy be for dealing with future military competitors? Should such a strategy aim at inhibiting those competitors?

These questions are just a starting point. Indeed, figuring out what the right questions are is a challenge in itself. But assuredly, officers must think beyond the issues of force drawdowns and the Five-Year Defense Plan. As Paul Bracken has pointed out, "We should be looking beyond the military we are planning to have at the end of our current force restructuring—we should be planning now for the 'military after next.'" ¹² **JFQ**

NOTES

¹ Winston S. Churchill, *Their Finest Hour* (Boston: Houghton Mifflin, 1949), p. 2.

² Quoted in John Taylor Wood, "The First Fight of Iron-Clads," in *Battles and Leaders of the Civil War* (New York: Thomas Yoseloff, 1956), p. 692.

³ Mary C. FitzGerald, "The Soviet Image of Future War: Through the Prism of the Gulf War," *Comparative Strategies*, vol. 10, no. 4 (October–December 1991), p. 393.

⁴ *Ibid.*, p. 398.

⁵ Mary C. FitzGerald, "The Soviet Military and the New Air War in the Persian Gulf," *Airpower Journal*, vol. 5, no. 4 (Winter 1991), p. 64.

⁶ The emerging nature of RMAs is the subject of an unpublished manuscript by Andrew F. Krepinevich, Jr., entitled "The Military Revolution."

⁷ A cogent proposal for consolidating information management recently appeared in these pages: see Martin C. Libicki and James A. Hazlett, "Do We Need an Information Corps?," *Joint Force Quarterly*, no. 2 (Autumn 1993), pp. 88–97.

⁸ Dwight D. Eisenhower, *At Ease: Stories I Tell to Friends* (New York: Doubleday, 1967), p. 173.

⁹ See for example Stephen Peter Rosen, *Winning the Next War: Innovation and the Modern Military* (Ithaca, N.Y.: Cornell University Press, 1991); Barry Posen, *The Sources of Military Doctrine: France, Britain, and Germany Between the World Wars* (Ithaca, N.Y.: Cornell University Press, 1984); and James S. Corum, *The Roots of the Blitzkrieg: Hans von Seeckt and German Military Reform* (Lawrence, Kans.: University Press of Kansas, 1992).

¹⁰ Rosen, *Winning the Next War*, p. 255.

¹¹ Antulio J. Echevarria and John M. Shaw, "The New Military Revolution: Post-Industrial Change," *Parameters*, vol. 22, no. 4 (Winter 1992–93), pp. 1–10, and John W. Bodnar, "The Military Technical Revolution: From Hardware to Information," *Naval War College Review*, vol. 46, no. 3 (Summer 1993), pp. 7–21, appear to be the only articles on RMAs in professional military journals in 1993.

¹² Paul Bracken, "The Military After Next," *The Washington Quarterly*, vol. 16, no. 4 (Autumn 1993), pp. 157–74.

The Joint Force Quarterly ESSAY CONTEST ON Revolutions in Military Affairs

JFQ announces an annual essay contest cosponsored by the Office of the Secretary of Defense (Net Assessment) and the National Defense University Foundation to encourage innovative thinking on Revolutions in Military Affairs and how the Armed Forces can best prepare to remain dominant as the nature of warfare changes. All essays will be considered for publication in **JFQ**.

The contest will be open to military officers and civilians from this country as well as abroad. Cash prizes of \$2,000, \$1,000, and \$500 will be awarded to the three top entrants. In addition, a prize of \$500 will be awarded for the best essay submitted by either an officer candidate or officer in the rank of major/lieutenant commander or below (and equivalent grades). All winners will also receive a selection of books dealing with innovation.

Look for entry rules and other details in the next issue of **JFQ** (Summer 94).

Roles & Missions: Back to the Future

By CARL H. BUILDER



The Secretary and the Chiefs in August 1948 at the Newport Conference (from left): Lt Gen Lauris Norstad, Deputy Chief of Operations, Air Staff; Gen Hoyt S. Vandenberg, Chief of Staff of the Air Force; LTG Albert C. Wedemeyer, Director of Plans and Operations, Army Staff; GEN Omar N. Bradley, Chief of Staff, U.S. Army; Secretary of Defense James D. Forrestal; ADM Louis E. Denfeld, Chief of Naval Operations; VADM Arthur W. Radford, Vice Chief of Naval Operations; and MG Alfred M. Gruenther, Staff Director, Joint Staff.

U.S. Navy

This year's roles and missions debate is likely to be the liveliest since the internecine warfare that led to the Key West truce of 1948. The National Security Act of 1947 was the culmination of contentious efforts following World War II to unify the Armed Forces and to create an independent Air Force. When President Truman signed that act, he also issued Executive Order 9877, defining the functions of the Armed Forces. Differences in the language between the act and the order, however, left an opening for the Navy and

Air Force to continue their dispute over air roles. Secretary of Defense James Forrestal and the Joint Chiefs of Staff separately tried to redraft the order, but without gaining agreement. The conference convened from March 11 to 14, 1948 at Key West "appeared to reach agreement on the fundamental issues, chiefly between the Navy and the Air Force,"¹ but subsequent meetings (in Washington and Newport) and memoranda revealed that issues of interpretation remained. In the end, "the decision was not in any wise a victory or defeat for any service," and all the parties accepted an "obligation to work amicably to settle any differences."² A truce had been arranged; and it is the prospect of

The views expressed in this article are solely those of the author and do not represent the position of the RAND Corporation.

lifting this 46-year-old cessation of hostilities that has everyone holding their breath.

Not everything, of course, is up for grabs. Each service has an uncontested claim on core military operations in a particular medium—on land, at sea, across the beach, and in the air—that the others do not want to assume, sometimes even going so far as to denigrate the importance of operations in media other than their own. What is clearly of concern to the services, and what makes their hackles rise, are roles and functions that could conceivably overlap with their own and then be expanded, challenging their preeminence in a traditional domain or medium.

Those overlaps typically arise when a service devoted to military operations in one medium finds that it must conduct operations in another medium to insure its ability

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to operate effectively in its principal or traditional domain. One hundred years ago, such circumstances were rare. The only two military media were the land and sea—domains of armies and navies—sharply separated by the shorelines and with only occasional interactions at the interfaces (like shore bombardment, coastal defense artillery, and occasional raids ashore). Marines, as sea-going men-at-arms, had not yet staked a claim to the interface between the land and sea as their particular domain. Armies and navies could be assured that almost every engagement would remain on land or at sea, without a threat of significant encroachment by their opposites.

But transportation technology has changed all that. Military operations in the air blurred the sharp distinction between the land and sea. Armies and navies needed to operate in the air in order to secure their operations on land or at sea. At first, armies and navies used the air only for supporting operations—observation, artillery spotting, and scouting. But the airmen had different ideas about how to use the air as a new medium for military operations, even challenging the

pertinence of those forces constrained to operations on land or at sea. That is when the roles and missions debate began. The creation of an independent air force entrenched the debate; and military operations in space have extended it into still another medium.

These are classic turf battles. They occur at the margins between the media dominated by the four services. Air and space operations have become essential to land and sea operations. Moreover, air and space systems are seldom limited to supporting surface operations even when they are specifically designed to do just that; they can often be applied effectively to military ends in any of the media. And when those systems and their capabilities become the basis for budget and force structure arguments, the debate turns into a battle for institutional prestige and survival. That double spillover—from one medium to another, and then from capability to budgets—is what plagued the first great debate over roles and missions almost fifty years ago.

This is not a debate that the services will seek. Too much is at stake. These are issues they would rather see worked at the margins of their turf through bargains and agreements among themselves. Unfortunately for them, the debate is now being provoked by the bill-payers, whose concerns lie elsewhere. For the public, as expressed through the Congress, the issue is not turf but perceptions of waste in the form of duplication: Why do we need four different tactical air forces? Why not just one? Why do we need three different space programs, one for each of the military departments? Why do we need two ground forces? These are the public's questions that will fuel the debate.

But the debate will open a much bigger can of worms. Public questioning will lead to even tougher questions that the services would never raise if left to themselves. What is the role of the Army when the Nation no longer has to defend itself from predatory enemies? Do we still need the Navy when the threat to our commerce on the seas is not other navies but piracy? Why do we need the Air Force operating independently when the principal purpose of airpower is to support surface forces? Those are the gut questions that lurk below the surface of the impending debate.

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Reading the Body Language

For these reasons, the stated or public postures adopted by the services in the roles and missions debate will not necessarily reflect their real concerns, interests, or motivations. To read the body language of the services as they debate, we should keep in mind the following anxieties:

▼ True service concerns can be their vulnerabilities which they may very reasonably prefer not to reveal. With the possible exception of the Marine Corps, the services are uneasy about their justifications for the future—as separate institutions or beyond shadows of their former selves.

▼ The leadership of each service must represent and preside over diverse factions within their own institution; hence, they may prefer not to reveal their true affections for one faction or interest at the expense of others.

▼ The services may not be entirely proud of their motives when hard choices must be made. Like the new car buyer who justifies the purchase as a way of saving on repair bills for the old car, the real reasons don't sound very good except in the privacy of one's own head.

Nevertheless, there are intellectual devices that can help in anticipating the culturally-driven service motivations in the roles and missions debate. Although

these devices will not help much in understanding the arcane arguments that will attend the debate, they can be surprisingly reliable guides to the positions taken. In effect, they provide simpler models

of why the services will act in the ways they do, even though expressed reasons will be quite different. Here are some questions we should ask ourselves, well before the services take up their debating positions.

▼ What does each service treasure most that might be put at risk in the roles and missions debate?

▼ What systems (and roles) could be banned or excluded, say, by treaty or national policy without threatening a service?

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THE ARMY sees itself, ultimately, as the essential artisans of war, still divided into their traditional combat arms—the infantry, artillery, and cavalry (armor)—but forged by history and the nature of war into a mutually

supportive brotherhood of guilds. Both words, *brotherhood* and *guilds*, are significant here. The combat arms or branches of the Army are guilds—associations of craftsmen who take the greatest pride in their skills, as opposed to their possessions or positions. The guilds are

joined in a brotherhood because, like brothers, they have a common family bond (the Army) and a recognition of their dependency upon each other in combat.

What is the Army? It is first and foremost the Nation's obedient and loyal military servant. It takes pride in being the keeper of the essential skills of war that must be infused into the citizenry when they are called upon to fight.

What is it about? It is about keeping itself prepared to meet the varied demands the American people have historically asked of it, but especially prepared to forge America's citizenry into an expeditionary force to defeat America's enemies overseas. And in this latter role, the Army accepts (with understandable unease) its utter dependence upon its sister services for air and sea transport and firepower.

—Carl H. Builder, *The Masks of War*



Combat Camera Imagery (James Bowman)

▼ Who are the elite factions in each service; and how might shifts in roles and missions threaten them?

▼ Which offspring might the services throw to the wolves if they must to save themselves?

Anticipating the Positions

Here are my guesses at the answers for each of the services. Again, the answers do not reflect what the services will say, but the positions I think they will be driven to by their deeper interests.

For the Navy, the most treasured possession is its capital ships; and for the last fifty years these have been the big carriers. The most important question in the roles and missions flux for the Navy is whether the debate could jeopardize the justification for

their carriers. Naval aviators have dominated the evolution of their service, but not because of the Navy's intrinsic love of aviation. They ascended to the top of the Navy food chain because tail-hook aviators provide the justification for the Navy's capital ships; and capital ships still provide the justification for everything else on, under, and over the sea.

Capital ships and their constituents, once entrenched in the Navy, have not been overturned from within, but by trauma from without. Wood and sail yielded to iron and steam in battle before they did in the minds of naval officers. Battleship admirals lost their ships to bombs and torpedoes dropped by carrier air rather than to the peacetime arguments and theories of naval aviators.

Since there is no serious challenge to the capital ship stature of the big carriers from within the Navy,³ a challenge from outside is the most threatening prospect that could emerge from a shift in roles and missions. The Air

Force posed just such a challenge in the late 1940s in arguing the preeminence of *strategic* air warfare. Today, such a challenge would have to center on the need for substantial amounts of sea-based *tactical* aviation. The awkward position for the Navy is defending the idea of several tactical air forces, for it cannot and does not want them all. That is precisely the opposite position of the Air Force which would gladly own them all, only to make the sea-based portion of tactical air forces smaller and subordinate, perhaps eventually to wither away completely.

So, for the Navy, the aspect to watch is whether the roles and missions debate threatens the big carriers. The Navy's stake is the justification for its capital ships, not its existence.

For the Marines, the issue is self-reliance, and that means the certainty of their air support. The Marines never forget a lesson once learned, and one of those lessons was not to trust anyone else to provide support from

U.S. Navy (Tracy Lee Didas)



THE NAVY, more than any of the other services and over anything else, is an institution. That institution is marked by two strong senses of itself: its independence and stature.

The Navy's stature as an independent institution is on a level with that of the U.S. Government (which the Navy must sometimes suffer).

Who is the Navy? It is the supranational institution that has inherited the British Navy's throne to naval supremacy. What is it about? It is about preserving and wielding sea power as the most important and flexible kind of military power for America as a maritime nation. The means to those ends are the institution and its traditions, both of which provide for a permanence beyond the people who serve them.

—Carl H. Builder, *The Masks of War*



U.S. Navy (Terry C. Mitchell)

the air. They learned their lesson at Guadalcanal; and although they might trust the Navy to transport them across the sea, they don't for their air support once they are committed into combat.

Air support for the Marines doesn't mean close air support, in the sense that the Army and Air Force use the term. For the Marines, air support means security from attack from the sky over their heads, transport through the air, and supporting fires from the air. The Marine Corps will not give up any of those critical functions and rely on another service to provide them, even if they are assured that all operations are joint. The Army may not be particularly interested in using the air for land warfare; but the Marines know they must use the air for amphibious and littoral warfare.

So for the Marines the aspect to watch for is whether or not the debate impinges on

their retention of all that they need to operate independently when they are committed to combat. They expect to win the debate. The stake for the Marines is independence in combat, not their existence.

For the Army, the salient issues in the debate will be associated with assuring mobility and protecting its land forces from threats through other media. The Army is not so much concerned about the use of the sea, air, or space for land warfare as it is about getting to where the war is and being victimized by attacks from the media other than land. For global mobility, the Army remains dependent upon the Air Force and Navy to provide or insure the security of its transportation; to assume those functions for itself would be operationally liberating but fiscally crushing. Air and space defense against attack on land forces is the Army's greatest interest in the domains over its head. If airplanes and ballistic missiles were somehow banned, the Army could only be relieved, even if that ban required them to give up their own (mostly rotary wing) aviation. Part of the Army would like to own the air and space defense functions, but it is not in the mainstream and will not rally the leadership founded in the Army's three senior combat arms or branches.

The Army's deeper concern is not so much the division of roles as between the services, but the Army's role in the post-global war era. Having been the forward defender of the Western ramparts for forty-five years, the Army now finds itself trapped between its affection for the recent past and its longer tradition of service to the Nation. The Air Force and Navy have nothing that the Army wants, but the Marines do. The Marine Corps, by virtue of its combat history and special relationship with the Navy, has gained credibility over



Combat Camera Imagery (James Bowman)

THE AIR FORCE, conceived by the theorists of air power as an independent and decisive instrument of warfare, sees itself as the embodiment of an idea, a concept of warfare, a strategy made possible and sustained by modern technology. The bond is not an institution, but the love of flying machines and flight.

Who is the Air Force? It is the keeper and wielder of the decisive instruments of war—the technological marvels of flight that have been adapted to war. What is it about? It is about ensuring the independence of those who fly and launch these machines to have and use them for what they are—the ultimate means for both the freedom of flight and the destruction of war.

—Carl H. Builder, *The Masks of War*

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the Army for the quick, austere insertion of ground forces in the face of opposition. For the past fifty years the Army could largely dismiss that Marine capability because big wars would require heavier, more sustainable land forces that only the Army could bring to bear. But now the prospect of big, long wars is rapidly receding; and the Army is worried that the Marine Corps may have the land forces that will be the most in demand and, hence, find greater support.

In 1948 the Army worried that the Marines might “contemplate the creation of a second land army.”⁴ Today the Army is uneasy that the Marine Corps might be the *only* land army the Nation wants to maintain in readiness to project force overseas during an austere peacetime.

For the Air Force, the issue is the ownership of the best and most airplanes. They would prefer to own all the aircraft, especially all fast, high-performance planes. Basing aircraft, on land or at sea, is not the issue for the Air Force, though they would prefer to see them all land-based, primarily because that is the way to give them higher performance. Of all the airplanes they are willing to give up, it would be the slow, low, small flyers. The Air Force wouldn't fight hard to keep the close air support function or A-10s if the Army wanted them. Next would be the

theater or tactical transports, the “trash haulers.” So for the Air Force the cultural clues are to be found in what they treasure most and which offspring could be thrown to the wolves first if forced.

But the Air Force will enter the debate followed by a larger ghost. As the newest service and having had to fight long and hard for independence, the Air Force, despite forty-five years of challenging the other services for preeminence in power and budgets, remains relatively insecure about its independence. Most of the issues in the roles and missions debate have their roots in, or have been exacerbated by, the existence of an independent Air Force. The Air Force cannot help but worry that some may find resolution of the Gordian knots of the roles and missions debate in the dissolution of the Air Force. So the Air Force will hope that the debate can be kept to roles and missions and not become a challenge to the existence of the four military services or three military departments. If the debate spills over to those larger questions, the Air Force will feel exposed.

What about space? It will be an issue because of the external perception of duplication, not because any service wants all the marbles. The military space program is a big ticket item; and the services have learned that their shares of the budget pie will not long benefit from carrying burdens for *national* programs. Yet, no service can afford to abandon this important medium completely to another service to look after their needs. So their posture toward military space will be ambivalent. They don't want to be cut out of the program, but none of them want the program dumped on them as a black hole in their budget. This is one they might rather see become a DOD or joint program.

If the services tend toward these postures in order to protect their most vital yet unspoken interests, what outcome should we expect from this year's roles and missions debate? The current debate, like the one more than forty years ago, has been instigated by the bill-payers; and concerns over duplication (implying waste) will run orthogonal to service concerns over turf (preeminence in their media). Both concerns will intersect again, most clearly at the disposition of tactical aviation. There the stakes will be greatest for both the bill-payers and

the services, but they are not of equal weight to the protagonists. On one side, the stakes are money; on the other, they are visions which the services have of who they are and what they are about. Given the disparity of those stakes, the tactical aviation functions are likely to be changed only on the margins. Close air support to the Army could be a sacrificial lamb. The search for savings or appearance of more significant change will have to be taken elsewhere.

And elsewhere is most likely to be found in roles and missions that are mostly associated with the Cold War—in nuclear forces and military space. These are the ones that no longer (if they ever did) go to the hearts of the services, and they will be the easiest ones for which the services might accept transfers in ownership. If the changes which evolve from the debate can be limited to nuclear and space roles, the services will be able to breathe easier—until the next time. Much more by way of change is not impossible, just improbable. **JFQ**

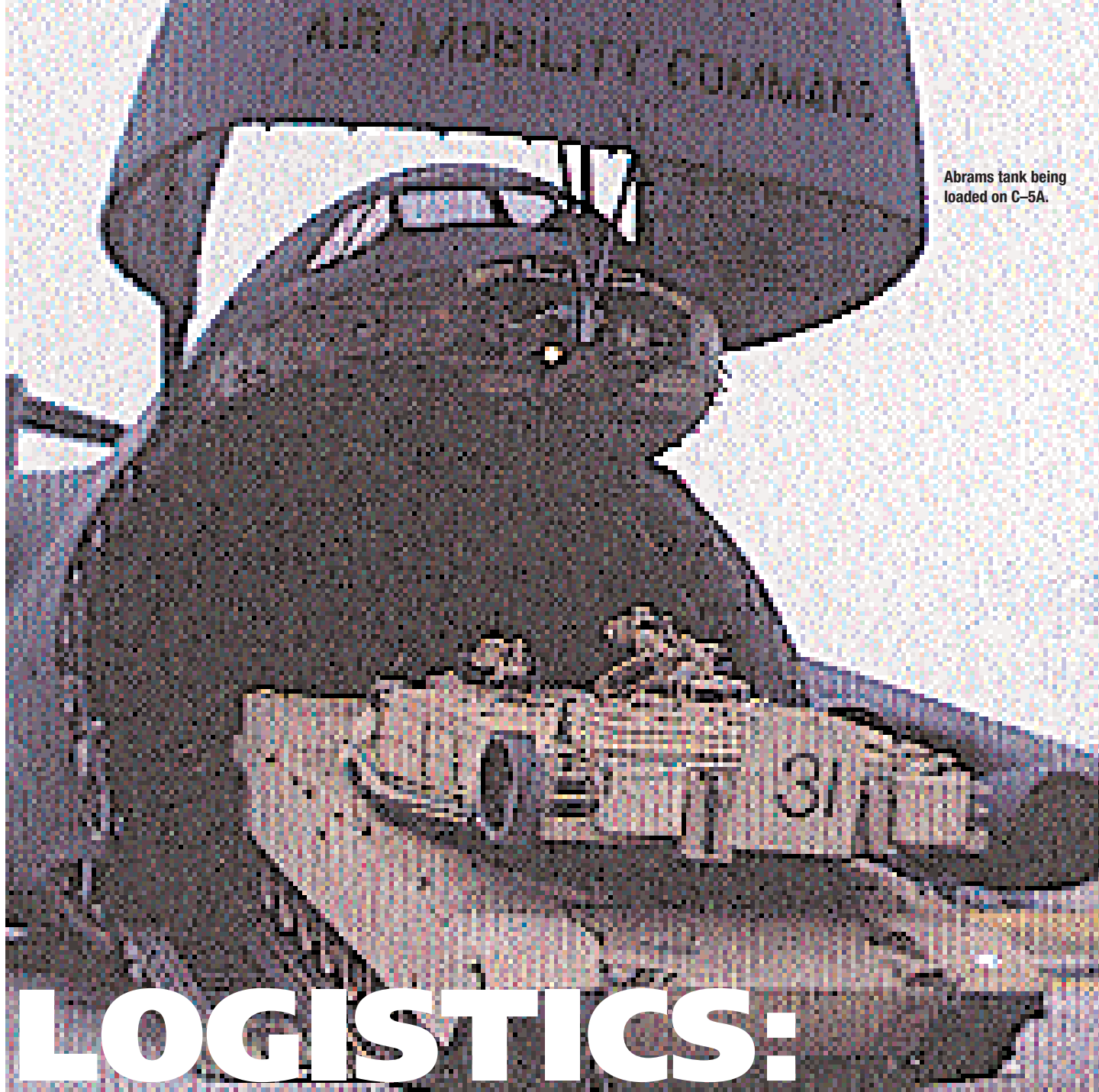
NOTES

¹ Alice C. Cole et al., *The Department of Defense: Documents on Establishment and Organization, 1944–1978* (Washington: Office of the Secretary of Defense, Historical Office, 1979), p. 275.

² *Ibid.*, p. 291.

³ During the Cold War submariners began building a credible challenge to the supremacy of carrier aviators within the Navy, but the end of the era drastically undermined their prospects.

⁴ Cole, *The Department of Defense*, p. 282.



Abrams tank being loaded on C-5A.

U.S. Army (Jesse Seigel)

LOGISTICS: THE WAY AHEAD

By GARY H. MEARS and TED KIM

Summary

Shrinking forces, increasing requirements, and dwindling overseas bases are sounding alarm bells across the logistics community that future crises may not provide the lead time and massive support which made the Gulf War a so-called *logistics miracle*. Ignoring the realities of a changing security environment on strategic mobility—airlift, sealift, and war materiel prepositioning—could recreate a hollow force that proves costly in lives and terrain lost. Specific attention should be devoted to enhancing strategic mobility, the mix of Reserve and active forces, and theater reception capability. Moreover, a total asset visibility tracking system must pinpoint the exact positions of items in the pipeline and CINCs' requirements for material and supplies must be accurately identified to ensure that stock levels closely approximate needs.

After Operation Desert Storm, terms like *logistics miracle* were invoked to characterize our victory. During the war itself various analogies were drawn to capture the enormity of the task at hand. Deploying to the Gulf was described as somewhat akin to moving the citizens of Richmond, Virginia, to Saudi Arabia with their personal belongings, cars, tools, and other possessions; some months into the process, we added in the entire population of Des Moines. While no one will deny the scale of the achievement, I'm not sure that it was a *miracle* given all the resources at our disposal. The best logisticians from around the world worked with U.S. Central Command (CENTCOM) to make things happen. We had military capabilities designed to counter a global Soviet threat and underwritten by a decade of impressive defense budgets. In addition, we had six months to deploy a force which had trained and worked together in an environment with a high operational tempo; the military was at its peak which provided a substantial margin for error. That margin, however, is quickly evaporating before our eyes, and it will continue to do so.

We are in a period when the Armed Forces are being significantly reduced in size, and yet are increasingly called on to meet new operational commitments overseas. Compounding this situation is a decline in overseas basing. These realities place higher stakes on logistic capabilities. A reduced logistic force must now support increased power projection requirements. Protecting U.S. interests means fighting and winning two major regional conflicts if necessary. Added to this are new roles and functions associated with peace operations and humanitarian assistance. We are more likely to be involved in operations short of all-out war. If this Nation is to succeed with a strategy of active engagement and peaceful partnership, we must have an unencumbered overseas military power projection and sustainment capability.

If we are going to be successful in avoiding frontal attacks, then we must also have an agile logistics capability to keep up with combat forces and effectively support operational plans like the "left hook" of the Gulf War. Finally, we want to avoid becoming a hollow force like that of the 1970s when F-15s sat around for want of engines. Our most important obligation as we enter this new security era is to maintain a properly sized, combat effective, strategically agile force capable of meeting any challenge to national security. Our focus of the future must address these issues if we are to successfully deploy the Armed Forces beyond our shores.

Strategic and Operational Logistics

With the significant force structure reductions of the past few years, we sought to maintain a streamlined logistic capability to support two nearly simultaneous but sequential major regional conflicts. To meet new demands during this era of budget and force structure cuts, we must make fundamental changes in our logistic support forces and how they do business—specifically in areas of strategic mobility, war reserves, the mix between active and Reserve forces, identifying future requirements, theater reception capability, and total asset visibility. These strategic and operational issues are key to deploying and supporting forces to meet mission requirements across the entire operational spectrum well into the next century.

Logistics responsibilities are already changing at the national level. In the past nations have been responsible for providing logistics support to their own forces. We have, however, made a recent significant change in NATO so that national support need not always be direct. Support can now be provided directly or by agreement with other nations. This will help establish and sustain future multinational forces. If nations are willing to take part in peace operations but are incapable of sustaining themselves, they can at least go out and make arrangements for another country to do it for them. The Armed Forces must also move in the same direction. When we assemble a joint or combined force, each service is individually responsible for manning, training, equipping, and sustaining its component—directly, by cross-service agreements, or

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through other arrangements. In the future, we will have to think and rely more on those other arrangements.

One of the most pressing operational dilemmas facing the military today is the increasingly constrained capability to rapidly project large numbers of personnel with their equipment to trouble spots worldwide. While this was done in the Gulf, similar conditions may not exist in the future. But

the need for projecting power is growing—in size, likelihood, and importance—as we rightsize, reduce overseas basing, and lose vast materiel reserves positioned around the world for a global war. Overseas projection capability is a critical element of our post-Cold War military strategy. The best trained and equipped, most powerful and capable forces will become absolutely irrelevant if we need four to six months to move them to a trouble spot. The Nation's credibility is directly linked to credible power projection.

Strategic Mobility

Projecting force to meet major regional contingency time-line criteria depends on a strategic mobility triad comprised of airlift, sealift, and prepositioned war materiel. The United Nations also relies on our mobility capabilities; today the United States supports virtually every U.N. military deployment. But once again, the requirements are increasing while our capabilities are decreasing.

Airlift. Many elements make up our strategic airlift capability. The most troubled relates to the core airlift capability, the C-141. Simply put, we depend on C-141s as the airlifter of choice to deliver large payloads of equipment and troops as well as to perform airdrop missions in wartime. Although we have 214 C-141s, they are too old to do the job. They have been flown extensively over the last few years meeting urgent requirements from the Gulf War to humanitarian operations such as Somalia, and closer to home for disaster relief in the wake of Hurricane Andrew. Twenty C-141s were retired in the past year. But we are recovering from the extreme fleet operational and payload restrictions of 1993 with a projected, unrestricted get-well date of December 1994.

Even with an average of 8–10,000 hours of projected service life remaining on each aircraft, we should not assume that the C-141 will remain the prime airlifter much longer.

C-5 aircraft are also aging. System reliability, critical spare part shortages, and prolonged maintenance periods barely allow for a 66 percent operational effectiveness. Our future core airlift capability is enormously dependent on fielding the new C-17. We have worked to attain an initial operational capability of 12 aircraft by 1995 with full operational capability of 120 aircraft by 2003. The C-17 program is under scrutiny and subject to termination at 40 aircraft unless production and test milestones are met. If the program is scaled back we must go forward with a general transport to immediately supplement the current fleet and to perform the core airlift function in the future.

Toward that end Congress set aside funds for possible acquisition of a non-developmental airlift aircraft to complement the C-17. Depending on the number of C-17s ultimately procured and ongoing requirements analysis, there is the option of supplementing or increasing the present capacity by acquiring new C-5s or currently produced wide-bodied commercial aircraft, such as the 747-400 or the MD-11. Upgraded C-5s would fill the outsize cargo lift void while the commercial designs would optimize bulk and oversize cargo delivery to developed airfields. With state-of-the-art technology for efficient operation as well as for meeting environmental standards, such aircraft would free the military-design fleet for more demanding mission scenarios.

Purchasing used commercial aircraft also could provide a relatively low-cost increase in our airlift capacity. Leasing commercial aircraft is an option that would exploit the industry's current excess capacity and offer crew and maintenance support to reduce military personnel, training, and overhead costs while strengthening our bond with the commercial air transport sector.

Lastly, the Civil Reserve Air Fleet (CRAF) provides up to 50 percent of our wartime airlift capacity. We must re-energize this partnership. In war CRAF will be called upon to move over 30 percent of air cargo and 90 percent of all troops. We could not have fought the Gulf War the way we did without CRAF although the Gulf War experience was



Allied forces assisting displaced Iraqis.



Engineers directing truck on board American Falcon.

U.S. Air Force (James Mossman)

based on lessons of the Gulf War, defense dollars have been programmed for sealift construction

not a good one for U.S. flag airlines. Those airlines which supported military requirements felt that they were placed in unfair business positions vis-à-vis their competitors. DOD must provide for adequate business incentives to offset revenues lost when wartime contingencies activate CRAF assets. Also, the existing governmental insurance and indemnification ceilings must be raised

to cover replacement costs should aircraft be damaged or lost on CRAF missions. The commercial airline industry is understandably reluctant to risk planes when DOD may not be able to reimburse their losses fully and immediately.

Today, our Civil Reserve Air Fleet is smaller than in 1990. This trend must be reversed.

Sealift. During the Gulf War build-up, General Schwarzkopf remarked: "When this war is over, the record must show that maintenance and care of our scarce national sealift assets is crucial if we are going to maintain a credible contingency force for the future." There were many reasons why it took so long to deploy ground forces from the United States to Saudi Arabia, chief among them the inadequacy of strategic

sealift. During the massive military build-up of the Reagan years relatively few dollars went toward improving sealift. Consequently, it took six months to deploy a counterattack force when it should have taken a third of that time.

Based on the lessons of the Gulf War, defense dollars have been programmed for sealift construction. The centerpiece of the Navy's strategic sealift program is the Large, Medium Speed, Roll-on/Roll-off (LMSR) ship. Construction and conversion programs are underway to provide 19 such ships by 2001. They will furnish two million square feet for strategically positioned afloat war reserves as well as three million square feet of wartime sealift surge capacity. Afloat war reserves are key to maintaining global strategic agility.

It has taken decades to get adequate funding for a fast sealift capability. While the Bottom-Up Review validated the need for these ships, we must nevertheless protect the funding throughout this decade to obtain them. This is the minimum required to support our strategy, and losing the funds for any of the 19 vessels will increase the risk to our capability from medium to high (or possible

mission failure). In other words, deployment of two heavy divisions for a major regional contingency would be severely degraded. The ships are even more critical to fighting and winning a second nearly simultaneous major regional contingency. Without them it is questionable whether we can meet the enormous strategic lift requirements within established planning time lines.

War Reserve Prepositioning. The third part of our strategic mobility triad is prepositioned land and afloat materiel. There have been major changes in both areas in the last

few years. Land prepositioning has been substantially reduced because of changes in war reserve strategy with the end of the Cold War. Previously we maintained war reserve materiel sets for many divi-

sions in Europe; now we are steadily drawing down to brigade-sized sets. Moreover, we no longer acquire and position war reserve stocks in preparation for a global war contingency. Our new war reserve strategy calls for acquiring and positioning stocks for only the two most demanding major regional contingency scenarios. The basis of this strategy is that if we can sustain those scenarios, we can support all less demanding contingencies. Obviously, our afloat prepositioned materiel is a key force enhancement to making this strategy work.

Since we no longer procure at Cold War levels—to position large quantities of equipment and supplies to meet each and every possible contingency—what is positioned afloat has grown in importance. Referred to as swing stocks, they can be moved quickly from one region to another providing theater commanders with immediate war reserve stocks to meet regional contingencies.

Eight of the new LMSR ships will be dedicated to afloat prepositioning. They will contain equipment and supplies to sustain the initial combat brigade elements deployed to an objective area. The goal for the Army is to eventually have 27 ships for afloat prepositioning; the Marine Corps is to have another 13 (known as Maritime Prepositioning Force ships) dedicated to its wartime needs. Since the first new LMSRs will not be available until FY96, parallel programs will provide interim

afloat prepositioned capabilities as early as this current fiscal year. Since near- and long-term ship programs are intended for future contingencies, it is sometimes tough to defend them in the budget process when competing against other requirements. We can no longer allow programming delays or cuts. Strategic mobility funding requirements cannot be continuously used to pay bills for other programs in the budget. These new cargo vessels are absolutely essential if the United States is to remain engaged worldwide with a credible power projection capability. They will provide strategic agility to respond to any global trouble spot.

Active and Reserve Forces

More and more the Armed Forces are being committed to what were once described as nontraditional military roles, namely, overseas humanitarian operations. This trend is likely to increase. Humanitarian operations generally require support force capabilities instead of combat capabilities. Humanitarian assistance requires assets basic to logistic support, a prime example being the forces involved in airdropping supplies in Bosnia. Another example is Somalia. Though there has been a significant reintroduction of combat troops to Somalia the mission remains primarily humanitarian. Close to 70 percent of all active non-divisional supply units assigned to Army Forces Command (FORSCOM) have deployed to Somalia to meet this requirement. Some 30 percent of FORSCOM petroleum and field services force structure also is committed. This indicates how little—only 40 percent—of the Army's total logistic force structure resides in the active component. Our strategy and missions no longer allow us to do business this way. That the active force must be augmented by individual Reservists and civilian contractors indicates that the active and Reserve component mix must be restructured.

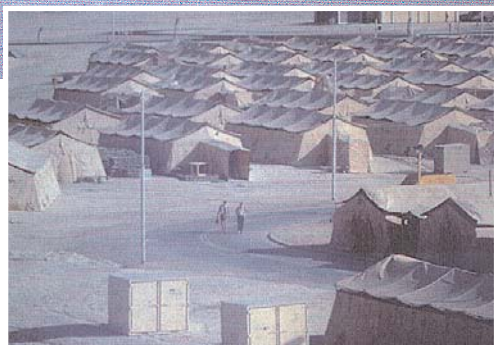
The bulk of combat service support has always been in the Reserve. This means retaining in the active force only what is needed for initial phases of contingencies and, when requirements near or surpass capabilities, mobilizing elements of the Reserve. Rarely in the past has that need arisen. Over 190,000 personnel were mobilized for

humanitarian operations generally require support force capabilities instead of combat capabilities



Shrink wrapping
helicopters for
shipment.

Temporary base in
Saudi Arabia.



Joint Combat Camera Center

U.S. Air Force (James Mossman)

Desert Storm; previously, no large numbers of Reservists had been mobilized since the Vietnam conflict in 1965. Mobilization of the Reserve is easier said than done. It involves difficult, complex decisions with a range of political, military, and economic implications. Experience indicates that prospects for a Presidential selected Reserve call-up to support humanitarian missions is unlikely in today's environment. The last mobilization for humanitarian reasons was during the Berlin Airlift in the 1950s. Given these realities, we must study the mix of active and Reserve component

logistic units within the framework of humanitarian mission requirements. The present mix worked for global war and

major regional contingencies, but it is not efficient to support large-scale humanitarian missions where the logistic support forces primarily help foreign nationals—or Americans for that matter—during disaster relief operations. When the limited active logistic units are committed to humanitarian missions, they are unavailable to carry out the principle mission of supporting and training with their assigned organizations.

The services must consider humanitarian mission needs in force planning. While preparing to win major regional contingencies remains our chief consideration, the realities of the security environment and defense

strategy cannot be ignored. By all indications the Clinton administration is intent on supporting humanitarian needs worldwide. Absent a proper mix of active and Reserve forces or support to combat force ratio in the active component, our abilities to meet contingencies in the future will be severely constrained.

One last note with regard to the Reserve: we must change the Presidential selected Reserve call-up authority to provide flexibility in dealing with U.N. and other humanitarian requirements. Currently, the President can mobilize up to 200,000 Reservists. We need to permit their activation for up to 360 days instead of the presently authorized 180 days and also authorize the Secretary of Defense to call up 25,000 Reservists for those situations short of a major regional contingency. With changes specialty units needed to effect rapid deployments could be called up, for example, air crews to support round-the-clock cargo flights.

Total Asset Visibility

Winning the battlefield information war remains a major modernization objective for all the services. We cannot fight and win conflicts without keeping up with ever-increasing requirements for information. For both tank commanders and theater CINCs, decisions cannot be made without real time information. Total asset visibility is intended to give decisionmakers timely information on materiel items. Logisticians should know the exact location and status of virtually any item, be it a damaged aircraft repair part en route to depot or a smart munition in the pipeline for a CINC. The application of decisive force by a CINC totally depends upon knowing the location of critical weapon systems, munitions, or repair parts. Today's limited inventories magnify this need over what was once standard and plentiful. Work has been underway to create this capability for twenty years, but we are far from achieving the desired result. Many of us have seen the Federal Express television commercial in which an office worker, under intense pressure to tell the boss the status of a delivery, retrieves the required data in seconds. That is the ability that CINCs expect today. Clearly, total asset visibility is an enhancement that is essential to offsetting the significant reduction of inventory assets.

**logisticians should know
the exact location and
status of virtually any item**

Determining Requirements

With reduced defense budgets we cannot afford to procure and stock materiel in the same way as during the Gulf War. Stocks must precisely equal what the CINCs need to fight the next battle. Quantifying logistic requirements is an area which still needs much work. We are starting to implement a new capability-based requirements determination process. When in place it will be a major force enhancement.

As the result of a munitions requirements analysis initiated last year under the direction of the Joint Staff, wartime needs are being identified using a methodology agreed to by the CINCs, services, Defense Intelligence Agency, and Joint Staff. This requirements determination process meets the needs of all the CINCs, builds and incorporates an estimate of out-year threat capabilities into the process, and establishes for the first time a methodology for allocating threat destruction to the CINC's service components. The end result will be a much more accurate determination of our needs based on battle plans. This is a credible determination process from all vantage points which provides a high confidence level that CINCs will have the necessary means to decisively destroy an enemy. In addition, there will be substantial reductions in what is procured, stocked, and shipped to a theater to fight the next battle.

During the Gulf War build-up, over 400,000 anti-tank rounds were requested to ensure the destruction of 5,000 enemy tanks. In many cases, requirements for anti-tank and other preferred rounds exceeded worldwide stock levels or requirements identified for a global scenario. In other words, our procurement requirements and theater CINC requirements were out of synchronization. We did not have a rationalized system which linked procurement calculations and projected CINC requirements. Only some 43,000 rounds were fired. A number of conditions contributed to the low expenditure rate, from the CINC's superb tactical planning and execution to the decision to terminate hostilities before destroying the total enemy force. Without drawing an overly simplistic conclusion, it is safe to say that had a requirements determination process been in place, we would not have had to commit as many ships to moving ammunition to the Persian Gulf.

Theater Reception

Once a robust strategic mobility triad is in place, our major force projection weakness will be a constrained theater reception and distribution ability. This limitation could seriously impede a CINC's ability to prosecute a war. In-theater movement, in most notional contingencies, provides the most demanding logistic challenge. We are likely to operate in developing nations where there are poor highway and rail networks as well as a limited airfield and seaport throughput capacity. With mobility improvements in place, for example, CENTCOM could expect to receive as much as a half-million short tons of materiel and supplies daily by C+54. To deal with the magnitude of this requirement, a Theater Logistic Support General Officer Steering Committee has been formed to enhance theater logistics; the committee is evaluating the theater logistic process, total asset visibility, and materiel distribution. Its work is vitally important to determining the next series of logistic force enhancements.

In August 1990, General Schwarzkopf knew what he needed in theater to accomplish his mission. On learning that it would take months to get heavy combat forces in place, he remarked: "Once again . . . the fighting dog is wagged by the logistics tail." We can't afford to keep another CINC waiting. Delays in providing men and materiel may result in unnecessary loss of lives and terrain. Readiness to fight and win the next major regional contingency, while sustaining daily forward presence, requires fundamental change. Enhancing the strategic mobility triad, the mix of active and Reserve forces, total asset visibility, the ammunition requirements determination process, and theater reception logistics must be pursued. Force structure reductions could lead to a logistically hollow force if downsizing impedes these logistic force enhancements.

JFQ



Marines disembarking from *USS Nassau* during Desert Shield.

U.S. Navy (Ken Mark O'Connell)

Joint Littoral Warfare

By CARL E. MUNDY, JR.

Summary

Coastal or littoral areas serve not only as protective barriers but also as a way of projecting power. The United States should exploit this advantage. Since 70 percent of the world's population lives within 200 miles of the sea, most future contingencies are likely to involve littoral warfare. Land basing abroad is becoming less feasible for various political and fiscal reasons, so power will have to be projected in whole or part from the sea, through undulating tides, and to points inland. While these operations will be joint, naval forces are central to them and should capitalize on their innate ambiguity and ability to resize and reposition themselves in ways that send signals to adversaries. The fundamental areas of such operations are forward presence, crisis response, and stabilization and enabling.

The defining strategic advantage available to a maritime nation is the ability to wage war globally, choosing when and when not to engage in continental struggles. American diplomacy has faithfully reflected this enormous leverage: we have enjoyed the luxury of waxing and waning between isolationism and interventionism based on domestic and international forces and the mood of the country. Despite this tendency, since the War of 1812, we have successfully maintained as a fundamental tenet of national defense that enemies should be fought on the far side of the oceans. The sea is thus not



U.S. Marine Corps

LVTP-7 assault amphibian vehicles.

only an insulator, but also a conductor for those who control it.

Controlling the seas was a primary strategic task during the Cold War. The expression of this doctrine was maritime strategy, a Mahanian derivative directed against the Soviet navy and its support structure, and designed to protect the sealanes and to embody the naval contribution of our warfighting strategy. This strategy was relevant for decades, but the demise of the Soviet navy as a serious threat has eliminated our only strategic blue-water adversary and irrevocably shifted the focus of joint planning.

Maintaining the ability to defend our interests—to exercise a credible military component of our national strategy away from our shores—continues to be a primary security objective as we emerge from the Cold War. To promote global stability, it is in America's interest to encourage the enlargement of democracies and free-market economies. Protecting interests and ensuring strategic access to vital areas in the future requires the continued effectiveness of forward-operating forces, and when necessary, an ability to project power from the continental United States.

While the Armed Forces have operated in overseas littoral areas since the late 18th century, littoral operations cannot be simply naval campaigns, as they have frequently

been in the past. The nature of littoral warfare with all its complexity implies not only naval forces, but also air and land power. This occurs across the continuum of engagement, from presence and deterrence, through major regional conflicts. Operations in coastal regions where land, sea, air, and space converge demand closely integrating the capabilities of all services in what must be inherently joint littoral operations, with a naval foundation.

The Bottom-Up Review

As a follow-on to the base force strategy and force structuring, the Bottom-Up Review was a second step in assessing the post-Cold War security environment. The review process identified four potential threats to national security that require attention:

- ▼ nuclear weapons in the hands of former Soviet republics, rogue states, or terrorists
- ▼ regional conflicts of varying intensity but geographically limited
- ▼ dangers to democracy and reform, particularly within former Warsaw Pact states
- ▼ economic dangers, resulting from a failure to sustain a strong, sound economy.

The Bottom-Up Review had no mandate to define strategy in perpetuity. Instead, it was a logical step broad enough to contain competing imperatives that may have to be addressed as the security situation changes. Events in 1989 launched a political revolution, but it does not follow that we should make revolutionary changes in military strategy and force structure. In fact, until the smoke clears, a conservative approach to strategy and forces is wise. That is why the review is evolutionary, not revolutionary. It may not go far enough for some critics, but it remains a prudent and thoughtful initial response.

The Bottom-Up Review, just like the Chairman's 1993 roles and functions analysis, was not a zero sum effort. No service or agency *lost*, and no service *gained* at the expense of others. The review was a logical follow-on to the roles and functions report. It looked at capabilities and sought to maximize complementary service strengths, but within certain fiscal restraints. Whether perfect or not, it was an honest attempt at a new strategic process, one based on a new world, with new and unclear imperatives. The operational requirement that emerged was based

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on a perceived need to fight and win two nearly simultaneous major regional conflicts. This requirement reflected the relentlessly regional outlook of the Bottom-Up Review.

The Littoral Environment

Our strategic focus has expanded to include the world's littoral, encompassing the coastlines of some 122 nations. The littoral poses its greatest challenges to operations because forces must straddle a dynamic environment mastering abrupt transitions from blue-water and shifting tides to dry land. Forces established ashore must generate combat power from an initially very low level, and thus are uniquely dependant on sea, air, and space forces for support. The dynamics of littoral combat vary dramatically, from the concerns of a carrier battlegroup commander or submarine commander negotiating shallow water to

our strategic focus has expanded to include the world's littoral, encompassing the coastlines of some 122 nations

insert a special operations team to those of an Air Force commander leading a strike package. Initially the air dimension appears to be consistent until critically varied landing, rearming, and refueling requirements are considered.

Demographically, the littoral environment stands out as the area with the highest probability for employing the Armed Forces. Some 70 percent of the world population lives within 200 miles of a coastline. Four out of five world capitals are within 300 miles of the coast. When crisis swirls around an American embassy chances are great that it occurs within operational reach of our littoral forces. Operations illustrating this point were conducted during a long crisis in southwest Asia in 1990–91. Simultaneously we conducted operations elsewhere like Sharp Edge in Liberia, Eastern Exit in Somalia, Provide Comfort in Turkey and Northern Iraq, Sea Angel in Bangladesh, and Fiery Vigil in the Philippines. Each operation tapped the unique capabilities of one or all of the services, and each was based wholly or in part from the sea. This multidimensional aspect will remain a characteristic of future littoral operations.

From strategic, operational, and tactical perspectives the challenge facing the Armed Forces in littoral warfare is great. Operations

in the often compressed battlespace of littoral regions hinder a multilayered defense, especially to landward. The broad array of military threats, air and surface traffic congestion, and natural forces complicate littoral force employment, especially in command and control. It is a tough medium in which to work, but it is clearly a double-sided shield which protects our naval forces initially, but through which joint forces must be prepared to penetrate in order to reach their objectives.

The operational challenge in littoral areas has intensified with its militarization, particularly over the last two decades. Many nations are expanding their littoral forces. This has been driven by various factors, both internal and external. While this growth is manifested primarily by naval expansion, it also encompasses the acquisition of land and sea mines, ballistic and cruise missiles, and advanced aircraft. Moreover, their employment is likely to be in congested littoral areas, with crowded shipping lanes and civilian air corridors, combined with problems of uncharted shallows. Militarization not only challenges the projection of power to littoral areas but potentially threatens the peaceful use of regional seas.

A Paradigm for Operations

Forces operating in the littoral can be best examined in three operational areas. The first is forward presence—in effect, what is done daily in much of the world. The next is crisis response, and the last is stabilization and enabling. These operational regimes roughly equate to an intensity ladder, moving up the continuum of engagement.

Forward Presence. Forces provided for forward presence perform four valuable services for warfighting CINCs. They project American influence through simple physical presence, often within the medium of joint training and other forms of constructive engagement. In this way they deter potential adversaries by maintaining credible combat power. In certain areas, forward land-deployed forces are best suited for this role. The decades-long presence of Army heavy forces in Western Europe is a signal example.

But in many areas of the world—particularly in the littoral—forward operating naval

naval forces allow a joint force commander to limit the footprint of forces ashore

forces are best suited for such tasks. Political, geographic, operational, and even fiscal constraints may preclude land-basing. If land-basing fails conventional deterrence relies on the capability to enter forcibly and defeat or reverse an enemy's conventional attacks. Deterrence, born of credible forward presence in peacetime and a timely response in crisis and war, is in the eye of the beholder; for this reason its viability must be constantly demonstrated.

Naval forces also possess the invaluable element of ambiguity by virtue of the medium in which they operate. They can be postured, moved, shifted, and used—cheaply—to send complex, subtle diplo-

Crisis response. Deployment options must gain an employment advantage in time and space. Strategic agility without operational capability is useless. Clausewitz warns of postponing action in time and space to a point where further waiting brings disadvantage. If the force present in the littoral area is not equal to the action contemplated and has to wait for reinforcement past the optimum time for action, the benefit of strategic agility is lost, and the force in place could reach its "culminating point" upon engagement.

In the littoral areas, the movement from presence to crisis response will be *enabled* by naval forces. This is one of the advantages of naval forces, preparing theaters for the entry of heavier forces. The overt entry of heavy combat forces into a theater can be unnecessarily escalatory, but naval forces can control escalation by the ambiguity of their operational patterns. They do not require forward basing or overflight rights, and they can loiter in international waters near the crisis region. Operations can be initiated from this sea base at the time, place, and manner of one's choosing. Because of this, they control the invaluable and irretrievable element of time.

Naval forces allow a joint force commander to limit the footprint of forces ashore and operate from a sea-base with command and control facilities, air control agencies, medical support, food and water production, and overall sustainment for land-based forces. This sea-basing may be critical in situations where a large presence ashore could jeopardize world opinion or unit security. It is ideal for the limited support infrastructure called for in many humanitarian relief situations.

One requisite for all forward-operating forces, particularly naval expeditionary forces, is an ability to conduct preliminary operations and serve as lead elements for the follow-on forces. To support these objectives, forces must be capable of various operations ranging from humanitarian assistance to amphibious assaults. They may resolve a crisis or manage it and provide a nucleus around which a joint task force can be formed.

Stabilization and Enabling. While possibly constricted the littoral battlespace still provides broad maneuver opportunities to strike



U.S. Marine Corps

Marines in Somalia during Provide Relief.

matic signals, and offer planners a choice between visible and invisible presence. In either case, however, they retain the benefits of both logistic self-sufficiency and immunity from political constraints which are unique to naval forces. There is a fine line between deterrence and provocation, and a large logistic footprint on the ground in an area like the Middle East could cross that line and inhibit future U.S. regional access and influence. Consequently, Naval Expeditionary Forces—largely carriers and Marines—will continue to provide the bulk of our forward operating forces in these sensitive areas.

an enemy, using surveillance and intelligence to determine critical vulnerabilities and centers of gravity. Securing access ashore (initial *stabilization*) demands the maintenance of potent forcible entry capabilities. These capabilities must be multidimensional, capable of more than one means of tactical entry. This flexibility is fundamental to effectiveness in initial-entry crisis response.

Depending on the situation, forcible entry may be achieved by an amphibious operation, perhaps combined with airborne

is more *green* than *blue* in character as it moves inland, and the green too shifts from Marine forest green to Army green in much the same way.

The goal of the Marine Corps is to provide a joint force commander with the capability to maneuver within his theater over and from the sea in a similar manner to what he does over land. We want maneuver to be seamless at water's edge. Salt water should be an avenue of approach, and the beach a permissive boundary for joint force maneuver instead of a limiting graphic. If he is successful, a joint force commander's "map" has no seam at the high water mark, and a potential enemy must see water as a key avenue of approach to be defended.

The ability to maneuver against an enemy's center of gravity depends heavily on the ability to project a highly mobile and sustainable landing force ashore. The assault echelon, the leading element of the landing force, may be tactically launched from amphibious ships as far as 25 miles out at sea. The assault may incorporate airborne and air assault forces when practicable.

While maritime-based forces may be the most useful in immature, austere theaters, it is obvious that these forces will be unable to affect decisions ashore above a certain level of combat activity or in major continental engagements. If we need to introduce heavy *decisive* combat forces ashore into a theater for an extensive land campaign, the Army will be the force of choice, along with the Air Force. It is in the difficult, dangerous process of getting large, equipment-intensive forces into a theater—*enabling* their entry—that the Navy-Marine Corps team is of the greatest use. In time naval forces will generally shift to a supporting role if a major land campaign is conducted.

Prepositioning ships, especially the Army's, do not offer a forcible entry capability. They are sequential and not simultaneous reinforcing tools. Accordingly, Army ships do not needlessly duplicate naval forward presence and crisis response forces. They are complementary.

Maritime Prepositioning Ships. Marine operating forces include specifically identified air contingency forces, additional amphibious forces, and Maritime Prepositioning Forces (MPF) that have been adapted to strategic mobility and possess 30–60 days of



U.S. Marine Corps

Marine CH-46.

operations. The Marine Corps contribution to a joint effort in the littoral is outlined in "Operational Maneuver From the Sea," which is the Marine Corps concept for projecting sustainable seapower ashore. Not only does it envision improvements in amphibious warfare, but it incorporates the principles of maneuver warfare for operating around, over, and if necessary against a defended shore.

Maneuver becomes part of the continuum through which naval expeditionary forces move to a littoral area, a continuum that remains unbroken at the high water line—unlike past amphibious operations which tended to be in difficulty beyond the establishment of the beachhead. Maneuver is a single, seamless operation extending from a secure base at sea over a hostile shore with the objective of dominating an enemy's center of gravity. All facets of seapower are synchronized in support of this effort which



U.S. Marine Corps

Marine preparing to engage.

sustainment. This second level of response allows a joint force commander to tailor assets for the crisis at hand by selectively augmenting and reinforcing naval expeditionary task groups already on the scene. Naval forces on the first and second levels of response can quickly achieve a unity of effort. They have a common ethos, subscribe to familiar doctrine and operating procedures, and train to maximize cohesion. To truly understand joint operations is to appreciate that joint forces are best built sequentially: they are “building blocks” rather than a “mix-master” of “oars in the water.”

Prepositioning Afloat Program. The Army Prepositioning Afloat (APA) program—which became operational on an interim basis this year and will be completed in 1997—offers another option for improving the surge of combat forces to theater. Similar to the Maritime Prepositioning Force, APA places a

heavy brigade and the fundamental elements of a theater infrastructure aboard 16 ships, and is expected to be located within about seven days from Korea and Southwest Asia.

Like MPF, APA is capable of moving ships to a secure port and combining embarked equipment with personnel flown to a nearby protected airfield. Rapid build-up of combat power in theater will be further enhanced by the surge movement of elements of two heavy divisions aboard 11 Large, Medium Speed, Roll-on/Roll-off (LMSR) ships.

Strategically, the Marine Corps and the Army prepositioning programs work in tandem. MPF allows Naval Expeditionary Forces to serve as an enabling tool in order to respond to various lesser regional crises such as those in Bangladesh, the Chuk Islands, and Somalia. On the other hand, APA would primarily support CINCs conducting heavy, sustained land warfare in regions like Korea or

Southwest Asia. Operationally, these prepositioning forces can reinforce each other. In the event of a major regional conflict of the magnitude of Desert Storm both forces are likely to rapidly build up combat power in theater. The amphibious force, rapidly reinforced with MPF, may secure a lodgement for follow-on forces and buy time for mobilization.

Moreover, APA and other enhancements may sustain land warfare in theater, while MPF reinforces amphibious maneuver against an enemy's coastal flank. APA and MPF complement the two services' strategic and operational roles and ultimately provide joint force commanders and the National Command Authorities with greater flexibility. But joint force sequencing becomes even more critical with this expansion of afloat prepositioning forces. Increased demand for strategic airlift, and the stresses on limited arrival, assembly, and throughput facilities, make imperative the need for a comprehensive understanding of force building to avoid piece-mealing of capability.

The ability to wage littoral warfare is an overwhelming strategic advantage which must be continually refined. Although operations in littoral areas of the world retain a predominantly naval flair, they now depend more on the ability to outmaneuver opponents at sea, in the air, and ashore; in other words, to wage effective joint warfare. How this is done will depend upon the time and situation—but all forces must be employed in their optimum roles. An effective understanding of joint force sequencing is critical in delivering an effective joint capability. The benefits are great. As Thomas More Molyneux wrote in 1759 at the height of the Seven Years' War:

A military, naval, littoral war when wisely prepared and discreetly conducted is a terrible sort of war. Happy for that people who are sovereign of the sea to put into execution! For it comes like thunder and lightning to some unprepared part of the world.

JFQ

Army Prepositioning Afloat

By ROBERT A. CHILCOAT and DAVID S. HENDERSON

Marines off-loading
prepositioning ship.

Joint Combat Camera Center
(Joseph Dorey)

Summary

Projecting forces from bases in the continental United States is the major way in which the Army responds to regional crises. Budget reductions, the return of forces from overseas bases, and the capability to deal with contingencies rely heavily on strategic lift and prepositioned equipment in order for Army units to deploy in response to a CINC's requirements. The "Mobility Requirements Study"—plus the *Report on the Bottom-Up Review*—highlighted the need for equipment to be prepositioned aboard ships under what subsequently became the Army Prepositioned Afloat (APA) program. While some might view this program as duplicating the Maritime Prepositioning Force (MPF) of the Marine Corps, APA actually complements MPF by providing heavy forces able to operate at great distances from the theater port.

The shift in focus from forward deployed forces to those based in the continental United States places greater emphasis on the need to have a strategic deployment capability that can deploy contingency forces to regional crisis areas. With few ground forces stationed in or near their areas of responsibility, commanders in chief (CINCs) rely upon deployable forces to quickly deal with crises. Power projection is foremost among military

requirements in securing national interests in the post-Cold War world, which continues to present diverse, complex, and dangerous challenges to the Nation.

The 1992 "Mobility Requirements Study" (MRS) recommended that an Army heavy brigade and basic elements of a theater Army logistics infrastructure be put aboard ships and prepositioned in a geographically strategic location. The prepositioned equipment is intended to speed arrival of heavy mechanized forces in a region and ensure early establishment of a theater army logistics base capable of sustaining forces during prolonged operations. The CINCs and service chiefs accepted these recommendations and the Army has begun to load ships accordingly. Currently projected to be fully operational in FY98, these ships constitute the Army Prepositioned Afloat (APA) program, an integral part of the strategic mobility triad.

APA does not directly compete with the Maritime Prepositioning Ship (MPS) program of the Marine Corps. In reality, APA ships carry equipment that, when combined with soldiers to man it, form units that complement the Maritime Prepositioning Force (MPF) which is comprised of MPS and Marines who support it. The programs can be used by joint force commanders (JFCs) either together for synergistic effects in conducting operations—capable of being sustained ashore and over wide areas—or separately. Together these two programs exemplify the phrase on the front cover of Joint Pub 1, *Joint Warfare of the U.S. Armed Forces*, namely, "Joint Warfare is Team Warfare." APA complements MPF operations and is the base for a more rapid introduction of Army units into a crisis area.

Roles and Functions

The Armed Forces are responsible for strategic nuclear deterrence, forward presence, crisis response, and reconstitution. While U.S. national security strategy is

under review, underlying principles continue to guide military planning. Each service has a part to play in accomplishing military strategy. For the Army it is "to organize, train, and equip forces for prompt and sustained combat incident to operations on land."¹ Historically, the Army has relied on forward deployed units to accomplish this mission. But with the drawdown of deployed forces as well as in overall service strength, more emphasis is being placed on power projection to meet regional crises. The Army currently has a contingency corps of five divisions (and requisite supporting forces) earmarked to deploy in response to regional crises. The sequence of their deployment depends upon the plans of CINCs and JFCs. The divisions are based in the continental United States and need considerable strategic lift (both sea and air) and prepositioned equipment to get them and their support systems to regional crises. The Persian Gulf War illustrated force projection in response to such a regional crisis. Problems encountered with the deployment of forces during that conflict have led to many lessons learned.

During the deployment phase of Operations Desert Shield/Desert Storm, deficiencies in the scheduling of forces became apparent. In many instances, because of the uncertainty of Iraq's intent, combat forces deployed before sufficient logistics systems were in place to support them. This led to considerable difficulties in force sustainment until logistics assets arrived.

Congress tasked DOD before Desert Shield to study mobility requirements and develop an integrated mobility plan. This task was passed to the Joint Staff which, working extensively with the services and using exhaustive computer simulations, developed a methodology to examine all areas of mobility/transportation. The areas studied included base and access rights, availability of commercial shipping, preserving American civil maritime capabilities, defense budget constraints, and lessons learned from the Gulf War. In January 1992, following service and regional CINC concurrence, the "Mobility Requirements Study" was sent to Congress. The Bottom-Up Review has subsequently reinforced the recommendations outlined in the study, specifically those dealing with prepositioned equipment and strategic lift.

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the “Mobility Requirements Study” identified key aspects of strategic mobility, including fort-to-port and port-to-foxhole

The “Mobility Requirements Study” identified key aspects of strategic mobility related to the entire transportation spectrum, including fort-to-port and port-to-foxhole. The study identified rail, strategic airlift, and shipping requirements. It also recommended either building or converting 20 *large* (380,000 square feet), *medium speed* (24 knot), *roll-on/roll-off* ships and increasing the fleet of container and cargo ships for moving sustainment supplies. Eleven Large Medium Speed Roll-on/Roll-off ships (LMSRs) are for an initial surge movement of heavy divisions from the United States, while the balance, combined with containerships and other cargo vessels, are for prepositioning equipment afloat for a heavy combat brigade (reinforced) and an initial theater army logistics base. This enables a heavy brigade—operating inland from a logistics base—and essential elements of the theater logistics base to

meet Army executive agency responsibilities for all services and to complement other forces which arrive early. These units in essence form the nucleus of the Army’s contingency corps in theater.

The Army developed a timeline for forces arriving in theater with a light division anticipated to close and be operational by C+12, and a heavy brigade using prepositioned equipment and fly-in units to be operational by C+15. The next goal is to close two heavy divisions by C+30 and the complete contingency corps of five divisions with its full support base to be operational by C+75. To accomplish this mission LMSRs are needed not only to preposition a brigade afloat but to surge equipment and make round trips from the United States to transport equipment and supplies to the theater. Moreover, container ships, crane and heavy equipment ships, float-on/float-off ships, and Lighter Aboard Ships (LASHs) must carry sustainment items for the contingency corps to the area.

While APA may appear analogous to the MPS squadrons/MPF of the Marine Corps, each service has a unique role and each program—APA and MPF—brings unique capabilities

to the JFC. The Commandant of the Marine Corps, General Carl Mundy, stated in these pages that: “Future military success will . . . depend on maintaining a system of joint warfare that draws upon the unique strengths of each service, while providing the means for effectively integrating them to achieve the full combat potential of the Armed Forces.”²

As mentioned the function of the Army is “to train, organize, and equip forces for prompt and sustained combat incident to operations on land—specifically, forces to defeat enemy land forces and to seize, occupy, and defend land areas.”³ The function of the Marine Corps is “service with the fleet in the seizure or defense of advanced naval bases, and the conduct of such land operations as may be essential to the prosecution of a naval campaign.”⁴ Each service provides warfighting CINCs and JFCs with units that have unique capabilities to accomplish service roles. JFCs can then determine how best to address crises by assigning units with specific missions that determine which forces to use singly or in concert with others. Ideally then, forces provided to CINCs work together to accomplish the mission of JFCs by furnishing synergistic capabilities.

Maritime Prepositioning Force

*In modern warfare, any single system is easy to overcome: combinations of systems, with each protecting weak points in others and exposing enemy weak points to be exploited by other systems, make for an effective fighting force.*⁵

Designed to rapidly introduce a force the size of a Marine Expeditionary Brigade (MEB) in a secure area, MPF uses prepositioned equipment and fly-in personnel. This force can accomplish the following missions: preemptively occupy and defend key choke points along strategic sea lines of communication, reinforce an ally with credible force prior to hostilities, support or reinforce an amphibious operation, establish a sizeable force ashore in support of a land campaign,⁶ and other missions assigned by CINCs and JFCs. Marine forces are task-organized with a ground combat element (GCE), air combat element (ACE), combat service support element (CSSE), and command element. Collectively the elements form Marine air-ground task forces (MAGTFs) which may vary in size from a reinforced infantry battalion (with armor,

artillery, and aviation) to a Marine Expeditionary Force (MEF) of one or more reinforced divisions.

Each MPS can provide combat and combat service support equipment (to include engineer, transportation, and medical), and 30 days of sustainment for MAGTFs of various sizes to MEBs. Using crisis action modules (CAMs) configured aboard the MPSs, these forces perform missions that cover a full range of operations from peacetime disaster relief/humanitarian assistance to high intensity conflict. But to use this force CINCs and JFCs must first secure a port or beach through which the ships can off-load and an airfield into which personnel and ACE fixed wing aircraft can be flown. This force conducts operations using infantry in

Assault Amphibian Vehicles (AAVs) with artillery, tanks, and both fixed and rotary wing aircraft. Limited transport capability hampers CSSE movement of supplies beyond certain distances. The operational radius of CSSE, without augmentation by

theater army assets, is between 30 and 50 miles from a port or beach area where the ships off-load. The operational radius can be extended by establishing forward combat service support areas and stockpiling supplies which is consistent with the Marine role of securing and defending advance bases and conducting other ground operations relatively close to the shore.

Army Prepositioned Afloat

The package of capabilities offered by APA is consistent with the Army's role of sustained combat ashore: a credible land-based heavy force, with a significant ground anti-armor capability, able to operate inland with extended lines of communication and for an indefinite period once the necessary support structure is established. Another perhaps more significant capability that APA provides is the theater army/corps logistics base.

Army prepositioning ships can have a heavy brigade (with two battalions of tanks, two battalions of mechanized infantry, a battalion each of artillery and engineers, and a combat service support battalion) operational in a crisis area by C+15. The combat brigade comes reinforced with additional artillery support (MLRS and ADA batteries)

along with military intelligence and military police support not normally associated with maneuver brigades. Like MPF, this force requires a secure port and airfield to off-load or receive personnel. But unlike MPF, APA can provide a heavier ground-based force capable of sustained operations inland, at extended distances from the theater army logistics base. APA also provides the theater and corps logistics base with heavy support for the brigade until theater, corps, and division support structures are established.

The theater army logistics base has a port operations unit, transportation unit with line haul capability (extended distance capability) for all classes of supply, a combat surgical hospital (296 beds), water purification, and essential elements to form a class VII reserve in theater. The major added capability of APA is sustainment stocks for the brigade for 15 days plus sustainment for the Army's contingency corps until C+38. Beyond that time, sea lines of communication should be open and further sustainment for theater forces delivered for distribution to all services based on the CINC's guidance through the theater army's logistics apparatus.

Deploying in Sequence

What do these forces provide CINCs and JFCs? An examination of the above capabilities suggests many possible missions for each or both forces. The principal capability that these forces provide is speed of deployment. Speed in this sense is relative compared to the ability of having an airborne brigade or airborne/light division flown into a country. Both forces provide viable combat capabilities with sustainment in very quickly. This allows CINCs and JFCs flexibility in how they choose to prosecute their campaign plans.

While many possible scenarios can be formulated, assume a regional crisis which demands the introduction of forces quickly into a country facing a threat with significant military capability. The CINC forms a joint task force (JTF), appoints a JFC, and begins executing an operations plan. The CINC requests movement of a MPS squadron and APA to the area in anticipation of the deployment of Marine and Army forces to meet his requirements. Upon approval by the National Command Authorities these elements

Army prepositioning ships can have a heavy brigade operational in a crisis area by C+15



Loading equipment
at Antwerp to be
prepositioned afloat.

U.S. Army (Pamela B. Simmons)

begin steaming to the area. As the crisis develops the JFC announces C-day (begin deployment). The plan requires an airborne division to secure airfield and port facilities for follow-on forces. Within four days of the announced C-day, an airborne brigade is on the ground and has secured an airport and begins to secure a port. As the port is secured, the MPS squadron, now offshore in international waters, is directed into port to off-load its equipment which is met by Marines of the MEB fly-in echelons. Within eight days a second airborne brigade is on the ground to further secure the area. No later than ten days after the first MPS arrives in port, a MEB-sized MAGTF is combat ready with combat, combat service support, and sustainment stocks ashore. ACE rotary wing assets have dispersed to tactical airfields established by CSSE, ACE, and Naval construction element assets. The airport is still receiving the final elements of the airborne division, the last combat brigade, and division support command. By C+12, the airborne division is fully closed and operational. As the forces increase in strength, the JFC directs them to deploy to a perimeter around the port or airfield complex and await follow-on elements. Marine

aircraft from ACE provide a significant daylight ground attack and all-weather air attack capability (close and deep) and aerial reconnaissance of the area of operation. Naval carrier aviation, and/or Air Force aircraft, along with Marine fixed wing aircraft, provide counter air protection.

As MPF completes off-loading and pier space becomes available, APA is called into port to off-load. Depending upon the tactical situation, the JFC decides through the Army component in what sequence to off-load the Army ships. In this scenario the JFC is concerned over a possible armor threat and wants to bolster his perimeter. He opts to bring the heavy brigade in and deploy its assets along the perimeter. The brigade's soldiers begin arriving at the airport, move to the port, and off-load their equipment. As each battalion is ready, it moves out to conduct relief in place operations with airborne forces which assume rear area security and reserve missions. Depending on port space the brigade's sustainment stocks may be unloaded with the heavy combat equipment. Many third world port facilities are unable to handle more than one or two ships at a time. Somalia is an example of how limited port facilities hamper off-loading operations and increase deployment time. Both systems have



U.S. Navy (Joe Bartlett)

Marine amphibian descending from Maritime Prepositioning Ship.

combat and logistics capabilities offered by Marine and Army units complement each other

"in-stream off-load" capabilities to off-load without port facilities. Once brigade equipment is off-loaded, ships carrying the corps sustainment base come in to port and off-load equipment. Arriving port, terminal, and transportation units assume control of the port operations and free CSSE personnel previously involved in this function to return to their units and assigned missions. The JFC expands his lodgement by having MAGTF and the Army brigade move further out, with the brigade positioned on-line but considerably farther inland than MAGTF. As brigade lines of communication lengthen, corps heavy equipment transports and supply assets provide the line-haul needed to supply the forward support battalion.

Based on JFC guidance added forces deploy to reinforce MAGTF and the Army brigade. As more room is needed to receive forces, the JFC orders MAGTF and the brigade to defensive positions further from the port. This places MAGTF outside the area where it can support itself. The corps transportation assets that are in country are called upon to keep MAGTF connected to its logistics base. By C+30, two heavy divisions arrive and are ready to conduct operations. The rest of MEF is closing and both services are developing significant combat power. Between C+45 and C+60, the Army theater logistics infrastructure is established and begins han-

dling common items of supply for all services in theater. The establishment of this logistics infrastructure is enhanced by the early introduction of units carried by APA.

This scenario is basically Desert Shield with the modification of when forces (that is, heavy brigade and logistics units) arrive in theater. Using an airborne brigade to secure the port or airport could just as effectively be accomplished by an operation using a Marine amphibious task force or expeditionary unit as required. Combat and logistics capabilities offered by Marine and Army units complement each other. The Army force offers a significant inland sustained anti-armor capability while Marines provide an initial mechanized infantry and armor support near coasts together with significant deep and close air support. Both provide sustainment, but the Army corps and theater level logistics base is a significant capability, sustaining Army forces and providing common item support to all services during sustained operations ashore. This base also establishes a foundation for follow-on combat service support units to build on.

If the scenario changes to a nation-building or disaster relief mission, the size and type of force used will be determined by CINCs and JFCs. A Marine expeditionary or amphibious unit, using MPS stocks, may be called upon for the mission. Operation Sea Angel in Bangladesh is one example. An alternative force may be a Special Forces battalion (or other Army unit) conducting nation-building activities. This mission requires significant combat service and combat service support assets which are available on two APA ships. Granted, the decision to off-load APA, like the decision to off-load MPS, is expensive due to amount of sailing and off-loading/back-loading. There may be cheaper and faster alternatives to providing the support needed for nation-building or disaster relief activities; but APA can supply these missions if the National Command Authorities, Secretary of the Army, and CINC agree it is appropriate.

Team Warfare

The APA and the MPS give regional CINCs and JFCs capabilities to address crises. Rapid deployment of combat and sustainment forces provides CINCs and JFCs

flexibility. Tailoring the introduction of forces is also an option. Developing a solid logistics foundation in either secure or friendly ports may be more important than introducing combat forces. Deploying APA and off-loading the theater army or corps logistics base with a sustainment package gives CINCs and JFCs capabilities to provide better sustainment for deploying Army forces. Moreover, it facilitates using these forces for nation-building, disaster relief, or humanitarian assistance missions. Again, other more economical means of providing this kind of support may be available, and both CINCs and JFCs should consider them before requesting the use of these assets, whether APA or MPS.

The Marines want to expand MPS capabilities with more tanks, expeditionary airfields, and logistics stocks for MPS squadrons. This initiative is called the enhanced MPF and is designed to bring two MEB-sized forces (with additional tanks and supplies) into a theater by C+10. With two MEB-sized units, and accompanying ACE and GCE assets, the MEF commander would be able to provide even more capabilities to a JFC.

The combat forces carried by MPF and APA are complementary by nature. MAGTF, with mechanized infantry, armor, and air support, has capabilities which an Army heavy brigade cannot easily provide, that is, a force capable of fighting in urban, jungle, or mechanized environments. Conversely, an Army heavy brigade has more mobile ground-based, anti-armor capabilities than a Marine regiment (that is, a more robust ground-based, all-weather/day-night anti-armor force able to sustain offensive or defensive actions accompanied by a theater army logistics base). Both serve as lead elements for further deployments of combat and combat service support units. The heavy brigade is the foundation of a heavy division; MEB-sized forces serve a similar role in the MEF. Putting these two packages—with all the reinforcing capabilities provided by their respective services—under a single JFC produces a unique, potent force capable of handling many different threats.

The "Mobility Requirements Study" recommended increasing strategic sealift and also placing Army equipment aboard ships, two findings that were reinforced by the Bot-

tom-Up Review. This was complemented by the Army's development of a strategic timeline for deploying forces to crisis areas. The Marines already have MPS squadrons, each designed to introduce as much as a MEB-sized force with sustainment into a region. These programs are not redundant, but provide distinct, complementary capabilities. The Army has no intention of moving into expeditionary and amphibious operations. That is part and parcel of the Marine Corps. Instead, the Army is striving to develop an ability to deploy forces into a theater quicker, provide significant inland heavy forces able to operate at great distances from the theater port with a theater army and corps logistics base, and lay the foundation for follow-on forces. This is in line with the Army role under Title 10. The theater base is also the foundation from which the services can draw common items of support. Together the forces provide a JFC with a balance and synergy unequalled by the individual forces. As the Army Chief of Staff has stated: "We will meet future challenges through the simultaneous application of complementary [service] capabilities . . . that will offset quantitative and even qualitative force differences by our selective application of technology."⁷

JFQ

NOTES

¹ Joint Chiefs of Staff, *Unified Action Armed Forces* (Washington: Joint Chiefs of Staff, 1986), p. 2-4.

² Carl E. Mundy, "Complementary Capabilities from the Sea," *Joint Force Quarterly*, no. 1 (Summer 1993), p. 17.

³ Joint Chiefs of Staff, *Unified Action*, p. 2-4.

⁴ Chairman of the Joint Chiefs of Staff, *Report on the Roles, Missions, and Functions of the Armed Forces of the United States* (Washington: Joint Chiefs of Staff, February 1993), p. I-3.

⁵ Stanley R. Arthur and Marvin Pokrant, "The Storm at Sea," *U.S. Naval Institute Proceedings*, vol. 117, no. 5 (May 1991), p. 87.

⁶ MPF Staff Planning Course, Landing Force Training Command Pacific, Naval Surface Force, U.S. Pacific Fleet, San Diego, California (HO-313-1-8.1-9).

⁷ Gordon R. Sullivan, "Modernizing the Army," *Army Research, Development and Acquisition Bulletin* (May-June 1993), p. 3.





JFQ FORUM:

Mulling the Campaigns of World War II

The campaigns of World War II were many and their lessons varied. Operation Torch in North Africa tested joint planning for the first time since the war with Spain in 1898. The southern Italy campaign revealed differences within the coalition over objectives and the combined command of land, sea, and air forces. In the Pacific the search for centralized control resulted in a serious impasse that was only broken when the Joint Chiefs created dual Army and Navy commands. U.S. dominance of the Pacific war effectively relegated the British to the status of a junior partner who nonetheless countered any American proposal for launching a campaign against the Japanese to relieve China with continual objections. A retrospective look at these and other strategic and operational aspects of World War II is instructive for contemporary military practitioners and students with interests in joint and combined operations, coalition warfare, unified commands, and campaign planning.



Joint Power Projection: OPERATION TORCH

U.S. Army

Troops in assault boat
preparing to land in
North Africa.

By JOHN GORDON IV

Operation Torch was the first major Allied land-sea-air offensive in the European theater during World War II. Although it occurred more than fifty years ago, the operation offers valuable insights on forcible entry and deploying forces to distant areas of operation. Indeed, in many ways Torch is a classic example of joint power projection.

In the future, the Armed Forces may have to rapidly deploy great distances by air and sea to conduct forcible entries in austere environments. Initial entry forces may be heavily outnumbered and operate far from secure bases. That type of situation is much closer to Torch than it is to the military planning of the Cold War. Consider these aspects of Torch:

▼ The forces sent to North Africa made long distance deployments; the Western Task Force

which assaulted Morocco deployed directly from Norfolk, Virginia, to the objective.

▼ Forcible entry was required to establish a lodgement.

▼ Torch was a joint operation requiring close cooperation between the Army and the Navy in an era when interaction between the two services was uncommon.

▼ Torch required close cooperation between British and American and land, sea, and air forces which constituted the first major combined Anglo-American offensive of World War II.

▼ The Navy initially controlled virtually all air assets, but provisions were made to rapidly transition the preponderance of air operations to land-based Army air power.

▼ Like most forcible entry situations, Torch was a risky operation (opposing Vichy French forces had powerful land, sea, and air capabilities, and the Allies came ashore far from supporting friendly bases).

The principle lesson of Torch is how a joint operation was planned and conducted to master the challenges of a complex long distance projection of power. This article focuses on the Army-Navy team that assaulted French Morocco. In geographical terms, Operation Torch stretched from southern Morocco to the center of Algeria. However the Algerian force was a combined effort and raises considerations that go beyond the scope of this article.

Torch occurred in November 1942 and was the first Anglo-American land, sea, and air offensive of World War II. Conceived as a means of opening a land front against Axis forces in Europe, Torch had profound strategic and political implications. Politics were especially important and influenced the campaign plan. The Allies wanted to storm ashore in Morocco and Algeria, hopefully without Vichy French opposition, and

rapidly advance to the rear of Rommel's Panzer army, thus ending nearly three years of fighting in North Africa.¹ Under ideal circumstances the Allies hoped that the French would greet the Allies with open arms. But if the French resisted, U.S. and British forces had

to be prepared to defeat them—thereby risking alienation from the local population as well as the military establishment of an ally.

Strategically, Torch would likely cause the redeployment of Axis units from a hard-pressed Soviet army, meet Roosevelt's demand that U.S. ground forces enter the war in Europe by the end of 1942, and place major Anglo-American forces on fascist Italy's doorstep.²

The Concept

Torch was conceived in the summer of 1942. The operation was a compromise solution to diverging American and British views of the war. General George C. Marshall, the Army Chief of Staff, had pushed for a cross-Channel attack. The British, on the other hand, reasoned that Allied resources to take on the Germans in France were lacking and

that it was more feasible to conduct an offensive in North Africa.³

In late July 1942 an Anglo-American decision was reached to land in Morocco and Algeria, rapidly advance into Tunisia, and to take the German Army Group, Africa, from the rear. From that point on detailed preparations began. On July 25 the code name Torch was officially adopted.⁴

The objective of the operation was to gain control of North Africa from the Atlantic to the Red Sea in coordination with Allied units in Egypt. The critical initial phase required simultaneously seizing ports from southern Morocco to the middle of Algeria. Close coordination among both American and British land, sea, and air forces would be necessary.

Will Vichy Fight?

As Allied preparation for Torch began, planners had to consider possible French resistance. After France fell in June 1940, her colonies had opted to either join the Allies under de Gaulle and Free France or remain loyal to the pro-Axis regime at Vichy. Unfortunately, military governments in Morocco, Algeria, and Tunisia were all openly pro-Vichy.

The 1940 Axis armistice allowed Vichy to maintain a force of roughly 55,000 in Morocco which included 160 light tanks and 80 armored cars, plus anti-aircraft and field artillery. Many of the troops were French, while others were drawn from the colonies. French units were scattered about the country with the greatest concentrations near the capital of Rabat and the larger ports.⁵ Complementing these ground units were French naval and air forces. Roughly 160 aircraft were available in Morocco, including Dewoitine 520 fighters, considered superior to Grumman Wildcats on U.S. carriers.⁶ The great port of Casablanca sheltered one light cruiser, three large destroyers, seven other destroyers, and a number of submarines. Also, the incomplete battleship *Jean Bart* lay in the harbor and, though immobile, it had an operational turret with four 15-inch guns. Coastal artillery covered all the major ports. Casablanca was so well defended that a direct attempt to seize this key harbor was judged impossible.⁷

The French were capable of serious resistance. Officially, French leaders in Morocco

Torch was the first Anglo-American land, sea, and air offensive of World War II

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were pledged to support Vichy and defend Morocco against any attacker. The French navy in particular could be expected to resist any British attack. Memories of the devastating British attack in 1940 on French ships at Mers-el-Kebir still lingered.⁸ But covertly, many French military and civilian leaders in North Africa were conspiring against the Axis. These brave Frenchmen realized that the only chance of liberating their country was through an Allied victory. Cautiously, the British and Americans brought selected French leaders into their plan in the hope that at the critical moment in the invasion the pro-Allied leaders would seize control of Morocco, Algeria, and Tunisia, thereby holding resistance to a minimum.⁹

In July 1940 the British, fearing that Hitler would force France to turn over its fleet to the Axis, demanded that French ships in Algeria and Senegal be scuttled or sail out of port to join the Royal Navy. When French commanders refused the British attacked and inflicted heavy losses on the French navy.

Another strategic consideration was possible action by Spain. Neutral since the start of the war, the Franco regime had earlier considered openly joining with the Axis. But the Allies were of two minds: Britain thought that Spain would remain quiescent while the United States was unsure. America feared that Germany might renew pressure on Spain, and noted that a division of Spanish volunteers was fighting on the Russian front. So unsure was America of Spain's intentions that several U.S. divisions were retained near the border between French and Spanish Morocco following the end of Vichy resistance.¹⁰

Joint Planning

Torch was the largest joint amphibious operation undertaken up to that time. Thus it was in many ways a watershed event for both the Army and the Navy. The number of issues that had to be considered and resolved was enormous. The two services had never conducted an operation like this. Prior to World War II interaction between them was infrequent. While lack of familiarity in each other's procedures did hinder preparations for Torch, the professionalism of key

leaders and staffs of both services overcame this handicap. The major concern was command and control.

While it seems strange today—in an age of JTFs—there was no unity of command prior to the departure of the Western Task Force. The key operational Navy commander was Rear Admiral Henry Kent Hewitt, Commander Amphibious Force, Atlantic Fleet, with headquarters in Norfolk. Hewitt, who was to figure prominently in Mediterranean amphibious operations, was designated to command Western Naval Task Force on October 10. His naval force would transport and support the Army in assaulting Morocco.¹¹ The assault force would be led by Major General George S. Patton, Jr., who was designated the Army Western Task Force commander. After receiving his mission on July 30, Patton immediately began to plan the seizure of the French colony, assuming that Casablanca would be the key objective.¹²

Hewitt and Patton had separate commands, with the former reporting to Commander, U.S. Atlantic Fleet, while the latter was directly subordinate to General Dwight D. Eisenhower who was the Allied Expeditionary Force Commander (controlling the entire Torch operation, from Morocco to Algeria). In conformity with late-1930s Marine Corps amphibious doctrine, it was decided that once the Task Force sailed all Army and Navy forces would come under naval command. Hewitt would be in command until Patton could deploy ashore and announce that he was ready to assume the lead role. Then Hewitt would become, in today's parlance, a supporting commander.¹³ Once the assault phase was complete, it was planned that certain Navy ships would be released from the Western Task Force and revert to control of the U.S. Atlantic Fleet; other ships would remain off North Africa to support Army operations ashore.

The Army had little amphibious doctrine to guide its planning for the assault. As a result, amphibious doctrine and techniques pioneered by the Marines in the 1930s and codified following several years of exercises near Puerto Rico were adopted by the Army. Even prior to the bombing of Pearl Harbor, certain Army units had undergone some amphibious training. The 3^d Infantry Division had developed a training program with the 2^d Marine Division on the west coast, and the 1st Infantry Division had

the Army had little amphibious doctrine to guide its planning for the assault

conducted amphibious training on the east coast with 1st Marine Division. This was fortuitous because by the time serious planning for Torch began in the summer of 1942, the Marines were almost fully committed in southwest Pacific. The amphibious assault phase of Torch was conducted exclusively by Army troops.¹⁴

There were a number of differences in how the Army and Marines approached amphibious assaults. Based on experience gained in the late 1930s, the Marines called for troops to go ashore with relatively light personal loads. The Army, on the other hand, needed well equipped troops for the uncertain assault phase of an operation, and tended to load more equipment on the men. The Marines also had learned from exercises that personnel had to be dedicated to unload supplies and equipment from landing craft once they reached shore. Marine divisions, therefore, included Pioneer Battalions whose primary job was to manage the beach and prevent landing craft from stacking up while waiting to unload. Army divisions lacked organic units for this task.¹⁵

The coordination and control of naval gunfire and air support by Army troops was also in its infancy during Torch. There was relatively little training in this area, although since the main objectives and French defenses would be within sight of the coast, it may have been assumed that observers on ships would be able to direct fire on the enemy. The Navy did provide spotter teams that would go ashore, and battleships and cruisers had seaplanes that could provide observation.¹⁶

Amphibious training for the force began in June 1942. Originally it was planned that large scale landings would be rehearsed on the North Carolina coast. But the summer of 1942 was a very dangerous time off the east coast—German U-boats were inflicting heavy losses on coastal shipping. Therefore amphibious training was moved to safer waters in Chesapeake Bay. During the summer Army units boarded transports in Norfolk to practice landings; assault training proceeded up to regimental level. As loading plans for the actual operation firmed up, efforts were made to embark Army units aboard the same transports on which they had trained.¹⁷



Naval Historical Center

To Seize Morocco

The success of Torch depended on the capture of a number of key ports, from Morocco to Algeria. Planners had to assume that the French would fight, so a forcible entry was required. The issues presented to the Army-Navy planners included:

▼ The need to simultaneously seize multiple beachheads: the sites were Safi in the south, Fedala just north of Casablanca, and Port Lyautey north of the capital of Rabat. Safi would serve primarily as an unloading point for the 2^d Armored Division which would dash north to assist in the attack on Casablanca. Port Lyautey's airfield was envisioned as the initial location for Army fighters that would fly ashore from a Navy aircraft carrier. Fedala would be the jumping off point for the advance toward the main prize in Morocco—namely, Casablanca.

▼ Air support during the first few critical days would have to come exclusively from the carriers. The nearest Allied air base was the small field at Gibraltar. That base would, however, be fully committed to supporting the landings in Algeria. Once the airfield at Port Lyautey came into American hands, over 70 P-40 fighters embarked on a small carrier would be flown by Army pilots to that site in order to relieve some of the burden from the Navy.

▼ It was hoped that a major attack would not be required against Casablanca or the capital of Rabat. The plan called for Casablanca to be encircled by forces from Fedala and Safi. Once Port Lyautey was secured, Army units would push south toward Rabat. Other Army units, plus carrier air, would block any French forces from the inland cities of Fez and Marrakech that might attempt to advance toward the coast.

▼ As previously mentioned, the Allied hope was that the French would not resist. For that reason the rules of engagement had to be written to

minimize the possibility of Allied forces firing on the French until it was apparent that fighting was unavoidable. There would be no pre-assault bombing or naval bombardment. A system was devised to allow any unit to announce it was in danger. A unit that was being fired on could announce "batter up," which meant it was preparing to return fire in self defense. Only the task force or attack group commanders, however, could initiate the general engagement of French forces. That command was "play ball."¹⁸

Considerable forces were allocated. Western Naval Task Force (or Task Force 34, Atlantic Fleet) was divided into Northern, Center, and Southern Attack Groups which corresponded to the landing objectives. Major naval units included one fleet and four escort carriers. Embarked were 103 Navy fighters, 36 dive bombers, and 26 torpedo bombers, plus 76 Army fighters. There were also three battleships, seven heavy and light cruisers, 38 destroyers, four submarines, 30 troop transports, plus numerous support vessels such as tankers, tugs, and minesweepers.¹⁹

Army forces included Force X on the Southern Attack Group, with an immediate objective of Safi and over 6,400 troops of the 47th Infantry Regiment, 9th Infantry Division, and elements of the 2^d Armored Division plus support units; Force Y embarked on the Center Attack Group, with an immediate objective of Fedala and some 19,300 troops of the 3^d Infantry Division, including elements of the 2^d Armored Division and support units; and Force Z loaded in the Northern Attack Group, with an immediate objective of Port Lyautey and just over 9,000 troops of the 9th Infantry Division, plus a battalion of tanks and supporting elements.²⁰

Tanks were included in each landing. Due to a lack of specialized tank landing craft (which became common later in the war), heavier medium tanks of the 2^d Armored Division would have to be landed on piers, hence the desire to quickly seize the port at Safi. General Patton planned to go ashore at Fedala to be close to the main drive on Casablanca.

The Crossing

Western Task Force embarked the Army forces in Norfolk, with several ships arriving at the last minute which complicated loading. On October 23 most of Task Force 34

departed from Hampton Roads. Patton was aboard the cruiser *USS Augusta*, the flagship. To deceive Axis agents or U-boats outside the harbor the task force initially turned southeast, ostensibly to conduct exercises in the Caribbean. Although the transports left from Norfolk, the carrier force and certain surface units came from other east coast ports. Linkups were performed in the mid-Atlantic.²¹

The task force route took it south of the Azores. Fortunately, no Axis submarines spotted the convoy en route. This was at least partly due to the fact that north of the Western Task Force's route a savage battle was underway in the North Atlantic in which convoy SC 107 lost 15 of its 42 ships.²² The U-boats were preoccupied. By November 6 the task force approached the Moroccan coast. At this point the weather took a turn for the worse. Hewitt studied forecasts received from Washington, London, and the task force itself. It was decided to go with the November 8 D-Day, despite risks of a heavy surf along the Moroccan coast.²³ On the morning of November 7 Task Force 34 split into three attack forces. That night Hewitt told Patton that the Navy would be in position the following morning to conduct the assault. All was now ready. The biggest question was whether the French would fight.

Landing

In the early morning hours of November 8 certain French military who were aware of the Allied plan tried to assume control in Morocco. An unfortunate series of mishaps and errors led to the arrest of pro-Allied leaders. The result was that the French, led primarily by the navy, elected to resist the landings. Thus began four days of fighting between American and Vichy forces.

The Southern Attack Group was the most successful. Since the main objective was to seize the port at Safi, the Army and Navy had devised a scheme to take it in a *coup de main*. At 0445 hours two World War I destroyers, *USS Bernadou* and *USS Cole*, each loaded with 200 soldiers, sailed directly into the port and debarked troops, thereby preventing damage to the facilities.²⁴ But French resistance began prior to the seizure

the main American objective in Morocco was the great port of Casablanca



Naval Historical Center

First Army P-40 taking off from *USS Chenango* for Morocco.

of the harbor. At 0430 coast artillery began firing on the ships offshore. The availability of naval gunfire support was critical. At 0438 hours Admiral Davidson, Southern Attack Group Commander, signalled "play ball" and Navy ships immediately engaged the French. In the first minutes of the exchange the battleship *USS New York* placed a 1,600 lb. 14-inch projectile on the fire control tower of the main coastal defense battery near Safi, effectively silencing the site. More Army troops stormed ashore north of the harbor and began to fan out into Safi while simultaneously overrunning artillery positions. While French aircraft did not attack, Navy fighters from an escort carrier were overhead. By mid-afternoon the city was secured and the 2^d Armored Division began to land. The Southern Attack Group had accomplished its mission.²⁵

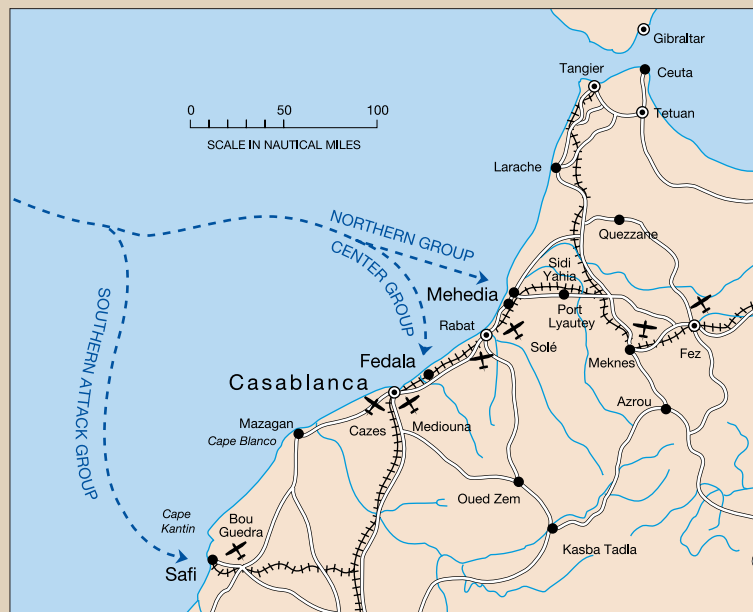
French resistance in the north was more determined and effective than at Safi. Initially, the assault went well. Army forces landed north and south of the Wadi Sebou River and advanced on Port Lyautey and the nearby airfield. Casualties on both sides mounted as the Army hit effective resistance during the drive toward the city and airfield. French armored reinforcements from Rabat were defeated by blocking Army units working in conjunction with naval gunfire and air support from carriers. By the morning of November 10 French opposition began to collapse. In a manner similar to the taking of

the port at Safi, the destroyer *USS Dallas* boldly sailed up the Wadi Sebou and debarked troops near the airfield. Naval gunfire and bombing drove off more French troops approaching from Rabat and Meknes, thus isolating the battlefield and allowing the Army to take the airfield. The battleship *USS Texas*, for example, dispersed a French column with long range 14-inch shell fire. By 1030 hours the first Army P-40s from *USS Chenango* landed at the airfield. The most severe fighting took place in the vicinity of the old Kasba. French troops within the fort repulsed several infantry assaults. Finally, Navy dive bombers attacked the fort, and shortly after the French surrendered. By the afternoon of November 10 the area around Port Lyautey was firmly in American hands.²⁶

The main American objective in Morocco was the great port of Casablanca. Unfortunately a direct assault on the city was impossible—there were too many coastal defense guns, including the 15-inch weapons of the battleship *Jean Bart*, in the immediate vicinity of the harbor. Therefore, the assault force had to come ashore north of Casablanca at the small port city of Fedala. Once a lodgement at Fedala was secured, an overland advance on Casablanca would begin. A major threat was the French fleet at Casablanca. Based less than 15 miles from the landing beaches were a light cruiser, three large destroyer leaders, seven other destroyers, gunboats, and 11 submarines.²⁷ If the French ships sortied, they would only be minutes from the landing beaches. For that reason the Navy placed its most powerful ships in the Center Attack Group. As opposed to the pre-World War I battleships at Safi and Port Lyautey, Center Force's *USS Massachusetts* was a new ship armed with nine 16-inch guns. Heavy cruisers armed with 8-inch guns, including *USS Augusta* with Hewitt and Patton aboard, plus light cruisers and destroyers were available to either provide gunfire support for the Army or engage the French navy. Farther offshore *USS Ranger*, the only American fleet carrier in Torch, was ready.

As at Safi and Port Lyautey, the French in the Casablanca-Fedala area elected to resist the landing. Coastal defense guns fired on U.S. ships near the Fedala beaches, prompting a vigorous reply from the fleet. Army units found surf conditions very poor

Operation Torch: Western Task Force (November 1942)



Source: Samuel Eliot Morison, *History of United States Naval Operations in World War II*, vol. 2, *Operations in North African Waters, October 1942–June 1943* (Boston: Little, Brown, 1950), pp. 52–53.

in the Fedala area; many landing craft were beached and wrecked, slowing down subsequent waves of troops and supplies. By mid-morning, despite the fact that French resistance in the Fedala area had been largely overcome, the landing was far behind schedule. Meanwhile, a major naval battle was taking place.²⁸

At first light *Ranger* had planes over Casablanca awaiting a French response. Before 0700 hours seaplanes were under attack by French fighters. Minutes later French coastal batteries and *Jean Bart* opened fire on American ships which initiated the naval battle of Casablanca that lasted the balance of the morning.²⁹ French surface ships and submarines sortied from Casablanca and headed toward the transport area off Fedala, all the while under fire from Center Attack Group's ships and *Ranger's* aircraft. Several U.S. vessels were hit by fire from shore guns and ships. But the French got by far the worst of the engagement. By early afternoon two French destroyers had been sunk, others were so severely damaged that they would sink later, and the cruiser *Primauguet* was

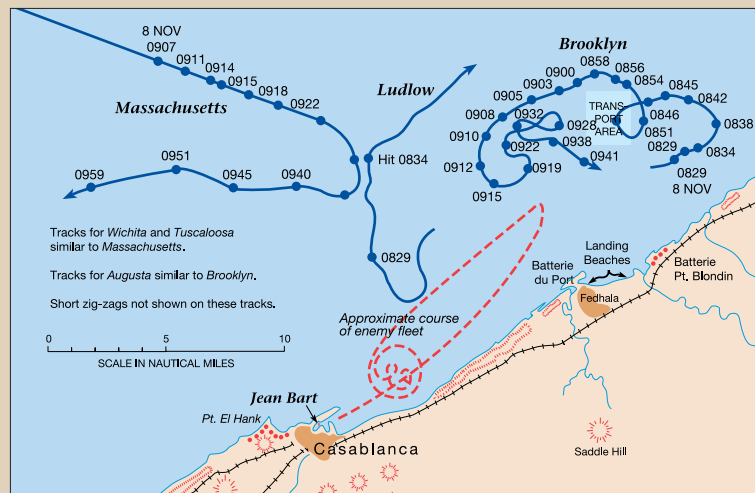
driven ashore. Additionally, *Jean Bart's* main battery was temporarily out of action following several hits from *USS Massachusetts*. Overhead there were numerous dogfights between French and U.S. Navy planes. Navy dive bombers sank three French submarines in the port and later completed disabling a battleship. The threat of enemy surface attack was eliminated. Throughout the battle Patton was on the bridge of *USS Augusta* with Hewitt. The French naval attack had delayed the general's plans to move ashore. By early afternoon Patton and his staff reached Fedala and the next day, November 9, he assumed overall command of the Moroccan portion of Torch from Hewitt—a smooth transition of command no doubt facilitated by the time the two officers had spent together over the previous several weeks.³⁰

After the securing of the Fedala beachheads, the Army prepared to advance south toward Casablanca. Meanwhile, elements of the 2^d Armored Division were pushing north to join in the encirclement and possible attack on Casablanca. With over 5,000 French troops in or near the city, and reinforcements on the way from farther inland, there was the potential for a stiff fight near the heavily populated port. Fortunately, negotiations between the Americans and the French resulted in a general cease fire in Morocco on the morning of November 11. Temporary enemies would become our allies. The main foe now became German U-boats. On the evening of November 11 several enemy subs slipped among the transports off Fedala and sank four—several of which were still loaded with over 90 percent of their supplies.³¹ That so many ships were exposed to attack was a direct consequence of the delays in unloading imposed by the shortage of landing craft and a lack of sufficient troops to unload boats—a valuable lesson the Army absorbed prior to the Sicilian and Italian landings. Nevertheless, by that day it could be said that Morocco was secured.

The Lessons

In that this was the first Army-Navy amphibious operation since the Spanish-American War, the invasion of Morocco went amazingly well. Certainly the inexperienced Army and Navy forces that took part in Torch were fortunate that the French did not put up a protracted resistance. Nevertheless,

Battle of Casablanca: Morning Engagement (Phase I)



Source: Samuel Eliot Morison, *History of United States Naval Operations in World War II*, vol. 2, *Operations in North African Waters, October 1942–June 1943* (Boston: Little, Brown, 1950), p. 102.

extract forces from a collapsing lodgement area. Strategically, it would have been an enormous setback if the first offensive in the European theater had ended in defeat. Future U.S. early entry operations could be placed in similar must-win situations. In Morocco, Army forces had to come ashore in heavy seas, under fire, against an enemy who could mount effective opposition on land, at sea, and in the air. It required domination of the sea, local air superiority, effective fire support, and overwhelming ground forces to ensure success at each of the three landing sites.

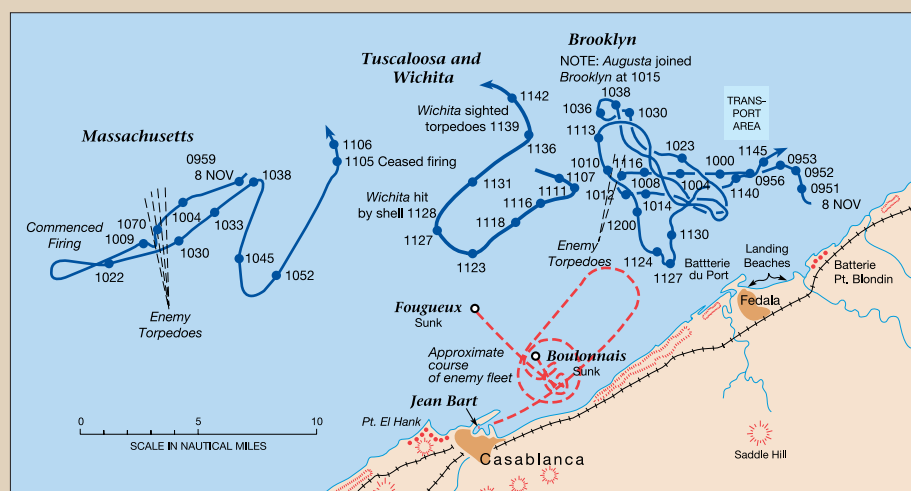
▼ Forcible entry required that overwhelming fire support be immediately available. At all three landing sites the French had powerful coast defense weapons and quickly engaged landing forces and ships offshore. It was due to the fact that massive firepower was immediately available in the form of naval gunfire and aircraft waiting on station that French weaponry was suppressed so quickly. Large caliber gunfire from battleships and cruisers was particularly effective. Today's precision weapons could replace the massive deluge of 14-, 8-, and 6-inch shells needed in 1942.

▼ There was a transition of air power from afloat to ashore. Due to the great distance from friendly bases all aircraft were initially carrier based. Planes from *Ranger* and three smaller carriers were a decisive element in the success of the invasion of Morocco. Navy aircraft performed all the air superiority, close air support, and interdiction missions for the first two and a half days of the operation. And the planners had provided for a transition of air power. The 76 Army P-40s flown ashore from an escort carrier represented a well-planned shift of the air effort. In modern terms, we could say the role of the Joint Force Air Component Commander (JFACC) changed from Navy to the Army. This was an innovative decision for 1942—but a technique we should be prepared to use in future joint force projection missions.

▼ Joint training contributed significantly to the success of Torch.

While there were gaps in the joint training of the Army-Navy force that deployed to Morocco, pre-invasion rehearsals and exercises held in Virginia were invaluable in what was not an era of regular Army-Navy training. A few months of pre-deployment exercises went a long way to make Torch successful. We should note that today Army-Navy training is still an infrequent event.

Battle of Casablanca: Morning Engagement (Phase II)

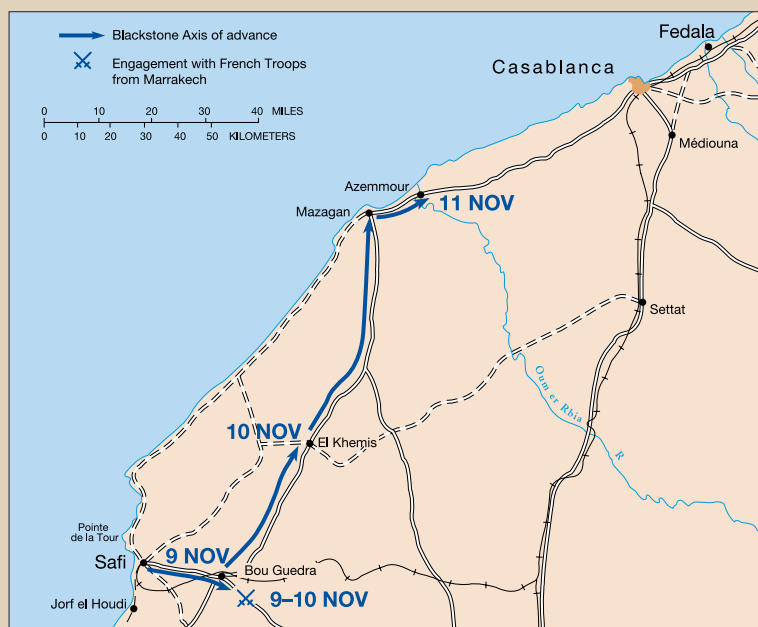


Source: Samuel Eliot Morison, *History of United States Naval Operations in World War II*, vol. 2, *Operations in North African Waters, October 1942–June 1943* (Boston: Little, Brown, 1950), p. 103.

it was a tribute to Hewitt, Patton, and their staffs that such a complex operation was executed so well. Looking back there are important lessons to be drawn from Operation Torch.

▼ Winning the early entry battle is essential. The riskiest part was the initial assault. The United States could not afford a defeat at that point. Tactically, it would have proved difficult to

Advance from Safi (November 9–11, 1942)



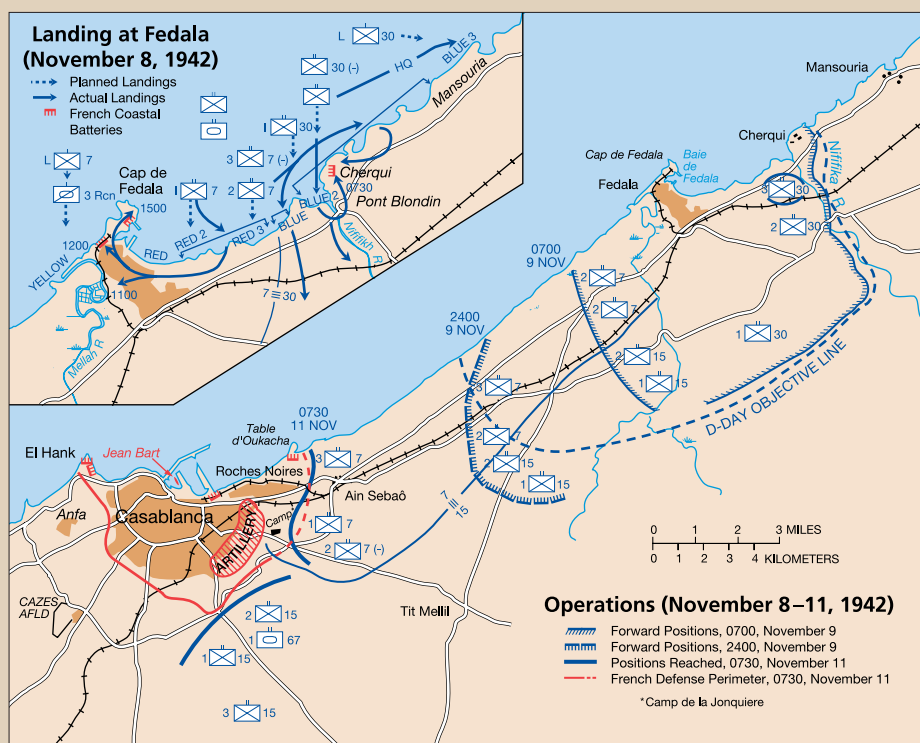
Source: George F. Howe, *Northwest Africa: Seizing the Initiative in the West. The Mediterranean Theater of Operations. United States Army in World War II* (Washington: Office of the Chief of Military History, 1957), p. 112.

▼ The planners were restricted in selecting objectives—they had to go for ports right away. The lack of an adequate over-the-shore capability forced planners to target ports for quick seizure. Had the Vichy troops been more determined, had the Navy not been able to quickly suppress their defenses, or had the enemy been better alerted, the fights for Safi, Fedala, and Port Lyautey could have been much more costly. A shortage of landing craft (and many of which were destroyed in rough seas on November 8) led to delays in unloading transports—ships that then became U-boat targets. Being able to initially enter away from heavily defended points such as airfields or ports, rapidly disembark personnel and equipment, and then quickly disperse strategic lift, should be a goal for U.S. joint forces in a forcible entry, whether the troops are landing by air or sea.

▼ Forcible entry is perhaps the most intense kind of joint operation. The Army could not have entered Morocco without the Navy's transport and firepower capabilities. Air superiority, initially all naval, was absolutely essential. The enemy had potent naval assets that had to be defeated—by the Navy. Yet in retrospect, it was the Army that had to actually seize the objectives, provide for sustained air power ashore, and ultimately compel the French to accept an armistice. The capabilities of land, sea, and air forces had to be carefully orchestrated, especially since the enemy was, at least on paper, numerically equal or in some areas superior. It was the overall capability of the joint force that resulted in the timely accomplishment of the mission—plus unwillingness on the part of the French to prolong the fight. In Morocco the pre-planned transition of command from Admiral Hewitt to General Patton was conducted very smoothly.

▼ Striking the enemy deep pays off. As the Army focused on defeating the French in close combat, Navy planes ranged far inland to interdict enemy reinforcements trying to move toward the coast. French troops moving north on the coastal road from Rabat to Port Lyautey were disrupted by naval gunfire well south of where Army troops were fighting to take the city's critical airfield. Other airfields were attacked deep inland to prevent bombing of landing areas. Aircraft were the only means of striking deep. With the target location techniques and

The Capture of Casablanca



Source: George F. Howe, *Northwest Africa: Seizing the Initiative in the West. The Mediterranean Theater of Operations. United States Army in World War II* (Washington: Office of the Chief of Military History, 1957), map. 2

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French battleship
Jean Bart in
Casablanca showing
bomb damage.

forcible entry is perhaps the most intense kind of joint operation

long range weapons available today, all components are able to effectively engage the enemy at great depths.

Technology has changed a good deal since 1942. Precision strike technologies replace the massive, bludgeoning naval gunfire of World War II. Over the shore logistics is much improved. Sensor and reconnaissance assets would amaze the commanders of 1942. In addition, the services have come a long way in codifying joint doctrine and procedures, and they exercise together before being thrown together in combat. Nevertheless, Torch still offers many examples of the kinds of things that a joint force must do to make an operation successful.

Probably the most difficult mission that the Armed Forces will be called upon to perform in the future is a long distance, forcible entry operation against a competent opponent. That is exactly what happened in Torch. Our predecessors of fifty years ago did an excellent job in planning and executing a very complex operation that worked. Studying Torch and similar operations can help us in looking to the future of joint and combined warfare.

JFG

NOTES

¹ Martin Blumenson et al., *Command Decisions* (Washington: Office of the Chief of Military History, 1960), pp. 173–86.

² Norman Gelb, *Desperate Venture* (New York: William Morrow and Company, 1992), pp. 76–83.

³ Blumenson, *Command Decisions*, pp. 186–88; Gelb, *Desperate Venture*, pp. 51–54.

⁴ George Howe, *Northwest Africa: Seizing the Initiative in the West. The Mediterranean Theater of Operations. United States Army in World War II* (Washington: Office of the Chief of Military History, 1957), pp. 13–14.

⁵ *Ibid.*, p. 21.

⁶ *Ibid.*

⁷ Paul Auphan and Jacques Mordal, *The French Navy in World War II* (Annapolis: Naval Institute Press), p. 228.

⁸ In July 1940 the British, fearing that Germany would force France to turn over its fleet, demanded that French naval units in Algeria and Senegal scuttle or sail out of port to join the Royal Navy. When French commanders refused the British attacked and inflicted heavy losses.

⁹ Gelb, *Desperate Venture*, pp. 141–65. Howe, *Northwest Africa*, pp. 77–84.

¹⁰ Howe, *Northwest Africa*, p. 26.

¹¹ Samuel Eliot Morison, *Operations in North African Waters* (Boston: Little, Brown, 1975), pp. 21–26.

¹² Howe, *Northwest Africa*, pp. 33–40.

¹³ Howe, *Northwest Africa*, pp. 44–46; Morison, *Operations*, pp. 23–28.

¹⁴ Howe, *Northwest Africa*, pp. 164–67; also see Walter Karig, *Battle Report: The Atlantic War* (New York: Farrar and Rinehart, 1946), pp. 164–67.

¹⁵ Morison, *Operations*, p. 27.

¹⁶ Howe, *Northwest Africa*, p. 61; Morison, *Operations*, p. 30.

¹⁷ Howe, *Northwest Africa*, pp. 60–67; Morison, *Operations*, pp. 23–33.

¹⁸ Howe, *Northwest Africa*, p. 45.

¹⁹ Morison, *Operations*, pp. 34–40.

²⁰ Howe, *Northwest Africa*, pp. 101, 122, 151.

²¹ Morison, *Operations*, pp. 43–44.

²² John Costello and Terry Hughes, *The Battle of the Atlantic* (New York: Dial Press, 1977).

²³ Morison, *Operations*, pp. 49–51.

²⁴ By contrast the attempt to seize Oran, Algeria, was a disaster. Two British cutters with nearly 400 troops from the 1st Armored Division entered the harbor. The French bitterly opposed the attack and both small ships were sunk. The Royal Navy lost 113 dead and the U.S. Army 189; Allied survivors were held prisoner by the French until the cease fire.

²⁵ Howe, *Northwest Africa*, pp. 97–115; Karig, *Battle Report*, pp. 191–200; Morison, *Operations*, pp. 135–56.

²⁶ Howe, *Northwest Africa*, pp. 147–70; Karig, *Battle Report*, pp. 191–200; Morison, *Operations*, pp. 115–34.

²⁷ Auphan, *The French Navy*, p. 228.

²⁸ Morison, *Operations*, pp. 55–87.

²⁹ Auphan, *The French Navy*, pp. 230–37; Morison, *Operations*, pp. 88–114.

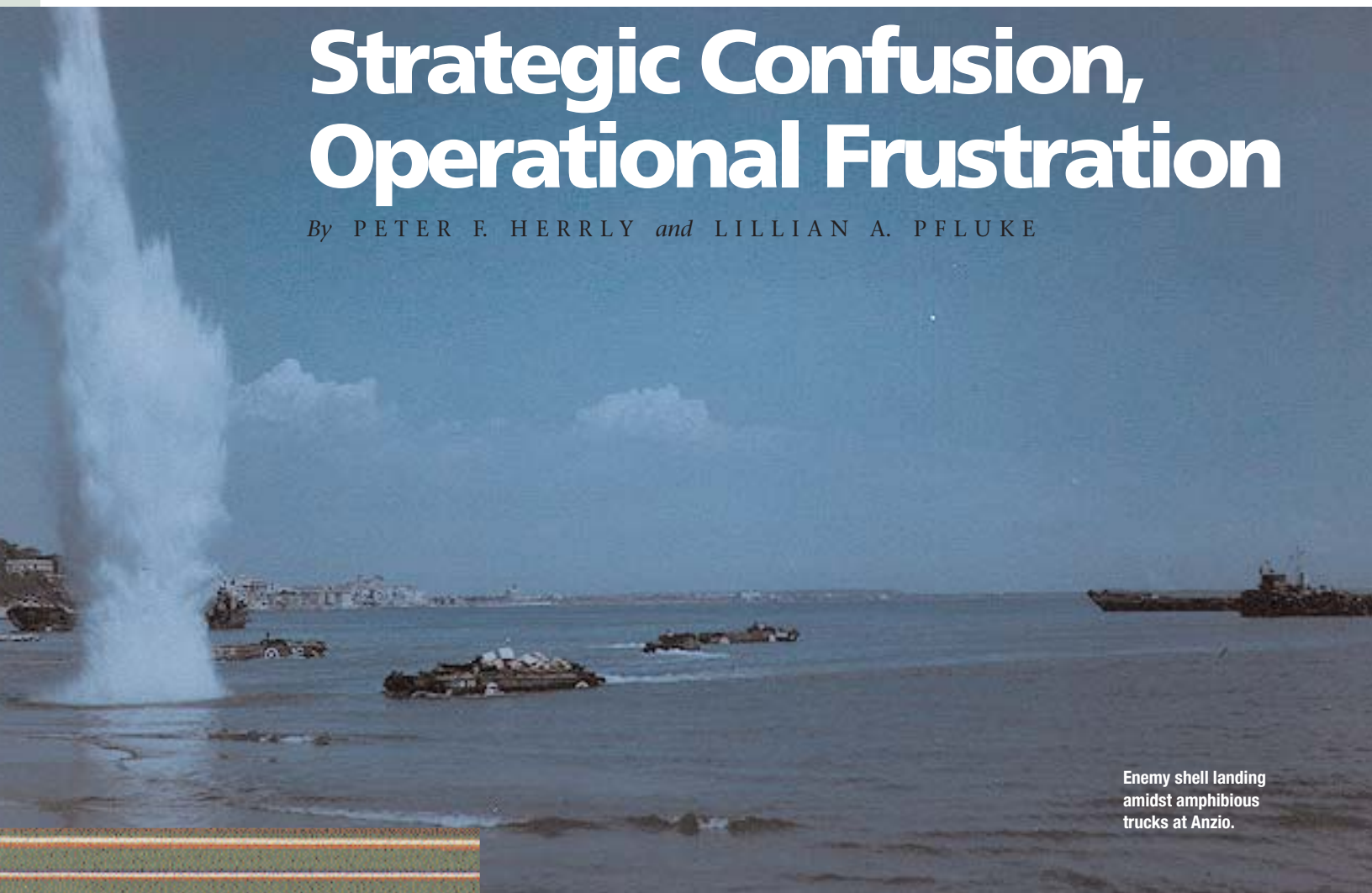
³⁰ Howe, *Northwest Africa*, p. 137.

³¹ Howe, *Northwest Africa*, pp. 174–76; Morison, *Operations*, pp. 167–74.

Southern Italy:

Strategic Confusion, Operational Frustration

By PETER F. HERRLY and LILLIAN A. PFLUKE



Enemy shell landing
amidst amphibious
trucks at Anzio.

U.S. Navy



Our Mediterranean experiences had reaffirmed the truth that unity, coordination, and cooperation are the keys to successful operations. War is waged in three elements but there is no separate land, air, or naval war. Unless all assets in all elements are efficiently combined and coordinated against a properly selected, common objective, their maximum potential cannot be realized. Physical targets may be separated by the breadth of a continent or an ocean, but their destruction must contribute in maximum degree to the furtherance of the combined plan of operation.

— Dwight D. Eisenhower ¹

Fifty years ago, in one of the most controversial campaigns of World War II, the Allies swept out of Sicily into southern Italy with high strategic hopes but vague operational objectives. After attaining a bitterly contested amphibious lodgement at Salerno on September 9, 1943, and the subsequent capture of Naples, the campaign turned into a succession of difficult and bloody battles that still resonate with frustration: the Volturno and Rapido Rivers, San Pietro, Operation Strangle, and most anguishingly Monte Casino and Anzio. Even the final battles that broke the German Winter Line and liberated Rome on June 4, 1944, remain controversial. Military historians debate if capturing the retreating Germans—not Rome—should have been the overriding Allied objective of this concluding phase of the campaign.

During the campaign for southern Italy, Allied land, sea, and air forces fought as members of a joint and combined command, under first General Dwight Eisenhower and then General Sir Harold Alexander. In retrospect these leaders prosecuted the campaign based on what we today refer to as the *foundations of the joint operational art*: air and maritime superiority, forcible entry, transportation, direct attack of enemy strategic centers of gravity, and sustained action on land.² Eisenhower and Alexander also relied on what Joint Pub 1 calls *leverage among forces* for the joint combat power that ultimately yielded a hard-fought victory.³ This analysis examines the southern Italian campaign in terms of current doctrine to reveal how its lessons influenced the development of military operations.

Strategic Context

Campaigns link battles to strategic purposes.⁴ Joint doctrine stresses that this process must define those strategic objectives toward which campaigns are directed.⁵ The campaign for southern Italy illustrates this rule. The Allied failure to set clear and precise theater strategic goals resulted in campaign difficulties and operational frustration. The

confusion arose from diverging British and American views on operations in the Mediterranean once the North African and Sicilian campaigns inflicted significant losses on the Axis and cleared sea and air lines of communication in the southern Mediterranean. The Allies resolved their differences over whether to attempt more in the Mediterranean by agreeing to knock Italy out of the war and tie down German forces.⁶ Thus further Mediterranean operations became a strategic supporting attack for efforts in northern France. But until the last minute, the United States and Britain could not decide where and how to pursue these limited goals. America was in favor of seizing Sardinia and Corsica and Britain wanted to operate in the Adriatic and Aegean Seas with the Balkans as the objective point. They compromised on Italy. General Arnold, who headed Army Air Forces, offered a key argument in the decision: the seizure of the complex of excellent airfields around Foggia would greatly aid the strategic air offensive against Germany.⁷

The decision split the difference between opposing views, but unfortunately included some of the worst aspects of both. The Allies would land in southern Italy, although at U.S. insistence major assets—seven divisions and large numbers of landing craft and long-range fighters—would be stripped from the theater and sent to Britain. Despite this reduction in resources, Prime Minister Churchill added the capture of Rome to the campaign's objectives. Granted, Rome was a glittering prize: liberating the Eternal City carried with it political and psychological benefits. But Churchill's intervention created a strategic and operational dilemma. Knocking Italy out of the war meant the taking of Rome even though the best way of tying down large numbers of Germans with minimum forces was by fighting in southern Italy without reference to the capture of Rome. This dilemma was not fully recognized and never resolved. Thus, when Allied forces came ashore in Italy, their commanders had no clear idea of how the campaign should be prosecuted or toward what end.⁸

**campaigns
link battles
to strategic
objectives**

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Invasion of Italy (September 1943)



Campaign Design: Salerno

Eisenhower's first planning assumption was that the *synergy* of available land, sea, and air forces would prove decisive. (Joint Pub 1 states that joint synergy results "when the elements of the joint force are so effectively employed that their total military impact exceeds the sum of their individual contributions."⁹) Despite shortcomings the Allied forcible entry at Salerno demonstrated the synergistic impact of land, sea, and air integration.

Joint considerations, including the distance from Sicilian air bases and the characteristics of the available beaches, drove the choice of Salerno as a landing site. (Unfortunately, as will be seen later, the same factors

were apparent to the Germans who rapidly reacted to the landings.) The amphibious landing would not have been possible without American preparations that were prompted by the disastrous experience of the British at Gallipoli. During the interwar years the Marine Corps developed amphibious doctrine, tactics, techniques, procedures, and equipment, and improved interface with naval and air power. This effort paid off in World War II: though no marines participated in the Salerno landing, Marine doctrine did. In fact, the Marine Corps trained the Army divisions that spearheaded the North African and Sicilian landings. In turn, the lessons from these invasions were crucial to the Allies in conducting the Salerno assault on short notice.¹⁰

Then as now operating in littoral areas offered major challenges as well as opportunities for joint synergy. In this regard the Salerno invasion has important implications today for joint forces. For the first time air interdiction supported amphibious lodgement (demonstrating the operational tenets of *simultaneity* and *depth* found in Joint Pub 3-0¹¹). Air attacks kept a skillful enemy off-balance and ill supplied. On the eve of the invasion, for instance, the Allies bombed Field Marshall Kesserling's headquarters near Rome and almost killed him.¹² In another illustration of indirect and often hard-to-quantify effects of strategic air attack and air interdiction, the Allied bombing of Rome contributed to the Italian government's decision to get out of the war. At the tactical level, one reason the German armored counterattacks at Salerno were piecemeal and uncoordinated was a lack of fuel caused by air interdiction which hampered movement by armored and mechanized units to the battlefield and significantly limited mounted training prior to the invasion.¹³ Allied air also helped protect Allied naval movements with timely reconnaissance, counter air, and suppression of key enemy coastal radars. For their part Allied navies effectively neutralized the U-boat threat and cleared sea approaches of mines.¹⁴ Most importantly, naval and air firepower was indispensable in helping ground forces hold off heavy counterattacks. German commanders reported that Allied naval fire and air bombardment made exploitation of their tactical successes on land impossible.¹⁵ Lastly, by the end of the Salerno

though no marines participated, Marine doctrine did



Loading LSTs at Italian port.

U.S. Army

the beachhead led to heavy naval casualties and an anxious period for Allied forces. In terms of joint doctrine today, some of the difficulties can be attributed to ineffective command and control. Based on the North African experience with fragmented command and control of theater air, General Eisenhower had a theater air commander, Air Chief Marshal Sir Arthur Tedder, whose pursuit of strategic attack and air superiority was necessary and sound. Below that level, Admiral Henry Kent Hewitt, USN, the amphibious force commander, was not the supported commander for the lodgement. If he been so designated—as envisioned under current joint doctrine—the theater air commander would have continued to orchestrate the air effort. But Hewitt, and

battles, the Allies achieved air superiority and retained it for the balance of the campaign.

Nevertheless, there were significant problems in getting the greatest possible synergy from Allied forces. The impact of naval gunfire suffered from a decision to seek tactical surprise and forego such support for U.S. forces (in contrast to the British who used naval gunfire effectively in the same landings).¹⁶ Moreover, the Army Air Force's reluctance to divert P-51 fighters from "more important missions" to artillery and naval gunfire support spotting reduced the accuracy of naval gunfire.¹⁷

Counterair efforts were not fully effective early in the invasion while *Luftwaffe* attacks contributed to the distress of land and naval forces. The only available carrier air was British, but their carriers generated sorties at low rates and were insufficiently trained in ground support operations which revealed British naval aviation's long period of neglect under the Royal Air Force.¹⁸ Allied land-based air could only loiter over Salerno for short periods due to range and fuel limitations as well as delays in establishing hasty airfields on shore. Unlike General Alexander Vandegrift of the Marines on Guadalcanal, American and British commanders at Salerno failed to fashion land tactical plans to emphasize seizure and protection of airfields ashore as a first order of business. The *Luftwaffe* advantage in shorter flight time to

later the ground commander of the landing force, General Mark Clark, could have designated priorities and timing for air support of the landing. The effect of command relations on lodgement was demonstrated when Allied Tactical Air Forces Headquarters in North Africa informed Hewitt that air cover was being reduced, indicating that it did not share his urgent protests since he faced only a "light enemy air threat." One hour earlier Allied naval forces had suffered catastrophic hits on two cruisers and pulled the command flagship out of the area.¹⁹

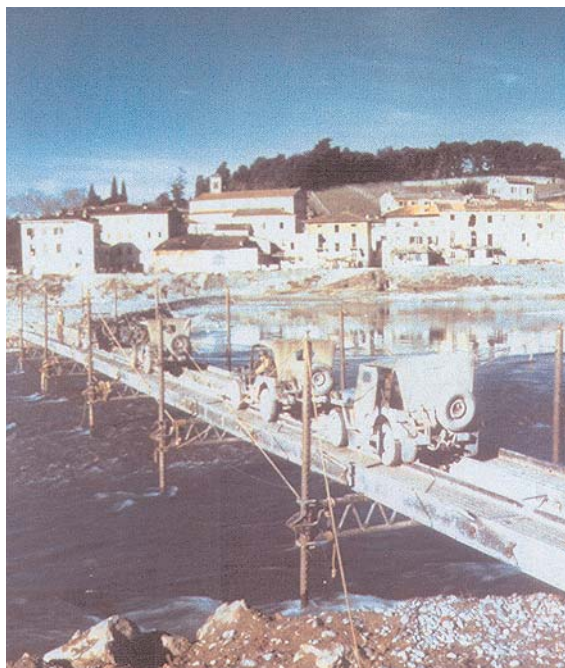
Strategic Air

The campaign achieved remarkable synergy by interacting with the strategic air offensive. As early as January 1942 Eisenhower had seen the potential effects of such interaction:

We felt we were bringing a new concept, almost a new faith, to strategic thinking, one which envisioned the air coordinated with ground operations to the extent that a ground-air team would be developed, tending to multiply the effectiveness of both.

Many ground soldiers belittled the potentialities of the airplane against ground formation. Curiously enough, quite a number of Air Force officers were also antagonistic to the idea, thinking they saw an attempt to shackle the air to the ground and therefore a failure to realize the full capabilities of air attack. It was patiently explained over and over again that, on the contrary, the results of coordination would constantly advance the air bases and would articulate strategic bombing effects with ground strategy, so that

Crossing a rebuilt
bridge over the
Serchio River.



U.S. Army

as the air constantly assisted the advance of the ground forces its long-range work would contribute more effectively and directly to Nazi defeat.²⁰

the Allies failed to anticipate German moves

This strategic doctrine was manifest in the seizure of Foggia's airfields and the subsequent formation of 15th Air Force. American heavy bombers operating from Italy gave a new dimension to the Combined Bomber Offensive, forcing the *Luftwaffe* to face in another direction and diffuse its defensive efforts. The new basing brought key production facilities in southeastern Germany within reach. More importantly it increased the effectiveness of attacks on Rumanian oil fields and German synthetic fuel plants (attacks which helped Allied land action in Russia, the Mediterranean, and northwestern France).

The drawback was an Allied failure to understand that strategic air assets carried a logistical price tag, including sealoift. For instance, bringing heavy bombers of Northwest African Strategic Air Force to Foggia involved shipping assets that could have moved two ground divisions to Italy; maintaining the bombers required shipping equal to the needs of the entire British Eighth Army.²¹

Anzio

The reasonably effective operational synergy obtained at Salerno contrasted with the failure to exploit similar advantages of naval and air power at Anzio. Conceived of

as a way to break the deadly stalemate on the German Winter Line, the Anzio landing did achieve operational surprise. Naval and air power again worked well to secure a lodgement. But the Allied commanders lacked sufficient resources to expand and exploit the beachhead and exert leverage to move the Germans. General Lucas, commanding the landing force, has been criticized for lack of boldness. But Lucas had to deal with the conflicting intent of his commanders. The combined commander, Alexander, wanted him to push to the Alban Hills, but the ground commander, Clark, ordered him to orient on protecting his force. Due to constraints in amphibious lift, Lucas simply did not have the combat power for daring operational schemes. (As Joint Pub 1 states, "the operational concept may stretch but not break the logistic concept."²²)

Operational Art

The Allied failure at Anzio was partially rooted in not adhering to another operational tenet, *anticipation*, which is taken up in Joint Pub 3-0.²³ The Allies, despite superior signal intelligence, failed to anticipate German moves. Kesserling surprised Allied leaders with his stand at Salerno, the fighting withdrawal to the Winter Line, the defensive design at Casino and elsewhere, and the reaction at Anzio. The failure to anticipate German moves and countermoves stemmed in part from an Allied inability to set the proper *timing* and *tempo*²⁴ for the campaign. Forced to husband their resources, the Allied key to victory should have been taking full advantage of air and naval power and deception and surprise to avoid enemy strength. But in repeated attacks along the Winter Line the Allies sent tired, shot-up units into action where failure to concentrate, poor combined arms and air-land integration, and inability to train, plan, coordinate, rehearse, and execute were disastrous.

Contributing to Allied operational problems was Allied failure to *synchronize maneuver and interdiction*.²⁵ The poor results of Operation Strangle were partly due to an Allied failure to tie the interdiction effort to the ground maneuver scheme, and vice versa.

Finally, after examining operational aspects of the campaign for southern Italy, the inability to achieve effective *operational reach*

appears as perhaps the most basic flaw. As previously noted the pitfall in choosing Salerno was that it was obvious to the Germans. A better lodgement would have been north of Rome, something which the enemy feared since such a landing would have cut off substantial German forces. Also as noted the major factor in picking Salerno was the range of Allied land-based air. But with the benefit of hindsight there was another option, "a campaign not fought," as suggested by Joint Pub 3-0 in its treatment of *basing* as an indispensable foundation of joint operational art in extending operational reach.²⁶ The official Army history of the campaign states that: "No one during the early months of 1943 seems to have been thinking of Sardinia and Corsica as stepping stones to northern Italy, even though the islands would offer staging areas for amphibious operations and airfields for short-range bombardment and close support."²⁷ Adding Malta to this line of operation by constructing expeditionary airfields there would have further increased aircraft range and sortie rates. Further benefits would have accrued from pursuing *multiple options* (like southern France) as advocated in the Marine Corps manual, *Campaigning*.²⁸ This operational approach was conceivable in 1943 since a similar approach—the interaction of land, sea, and air to bypass enemy strength—was at the core of campaign design in the southwest Pacific.²⁹

Although ultimately successful, the Allied campaign for southern Italy was flawed in two ways. First, the failure to define strategic objectives trapped the campaign designers into pursuing ambitious goals with insufficient resources. Second, Allied leadership compounded the problem by not prosecuting the campaign as efficiently as possible. Italy was not the soft underbelly that Churchill predicted, but rather a "tough old gut," as General Clark quipped.³⁰ Nevertheless, studying this campaign vis-à-vis current doctrine illustrates some important lessons of military history for joint commanders. **JFQ**

NOTES

¹ Dwight D. Eisenhower, *Crusade in Europe* (Garden City, N.Y.: Doubleday, 1948), p. 210.

² Joint Chiefs of Staff, *Joint Warfare of the U.S. Armed Forces*, Joint Pub 1 (Washington: National Defense University Press, November 11, 1991), pp. 54–57.

³ *Ibid.*, p. 51.

⁴ *Ibid.*, p. 45.

⁵ Joint Chiefs of Staff, *Doctrine for Joint Operations*, Joint Pub 3-0 (Washington: Government Printing Office, September 9, 1993), pp. III-2 and 3, and U.S. Marine Corps, FMFM 1-1, *Campaigning* (Washington: Government Printing Office, 1991), p. 34.

⁶ Martin Blumenson, *U.S. Army in World War II: The Mediterranean Theater of Operations, Salerno to Cassino* (Washington: Government Printing Office, 1969), p. 8.

⁷ Blumenson, *The Mediterranean Theater*, p. 13.

⁸ *Ibid.*, pp. 8–15. See also H.P. Willmott and Peter F. Herrly, unpublished presentation to the National War College and National War College Alumni Association 50th Anniversary Commemoration of the Campaign for Southern Italy, November 1, 1993.

⁹ Joint Pub 1, p. 48.

¹⁰ Allan Reed Millett, *Semper Fidelis: The History of the United States Marine Corps* (New York: Macmillan Publishing Company, 1980), pp. 350–51, and H. Kent Hewitt, "The Allied Navies at Salerno, Operation Avalanche—September 1943," *U.S. Naval Institute Proceedings*, vol. 79, no. 9 (September 1953), p. 961.

¹¹ Joint Pub 3-0, p. III-14.

¹² Blumenson, *The Mediterranean Theater*, p. 68.

¹³ *Ibid.*, p. 98.

¹⁴ *Ibid.*, p. 92.

¹⁵ *Ibid.*, p. 133.

¹⁶ *Ibid.*, p. 56.

¹⁷ *Ibid.*, p. 146.

¹⁸ *Ibid.*, p. 45.

¹⁹ *Ibid.*, pp. 103–07. Hewitt wrote that: "In justice to all concerned, it seems certain that the [HQ NATAF message reducing air coverage because of the light enemy air encountered] was sent before the news of the attacks on *USS Philadelphia* and *USS Savannah* had been received. But the incident does illustrate the time lag in communications and the dangers of decisions being made in a rear area for a front line commander who is the one best able to appreciate the immediate tactical situation. I realized fully that a 100 percent effective air defense was impracticable and that some successful enemy attacks must be expected. But, given the overriding importance of maintaining the naval gunfire upon which the Army was then relying for the retention of its narrow foothold on the beach, I did think that this was certainly *no* time for the *reduction* of fighter cover over the ships. I am a strong believer in unity of command, particularly in tactical operations. Tactical unity of command implies that a tactical commander should have under his own control all the available instruments necessary to the successful accomplishments of his mission."

²⁰ Eisenhower, *Crusade in Europe*, p. 47.

²¹ Blumenson, *The Mediterranean Theater*, p. 239.

²² Joint Pub 1, p. 47.

²³ *Ibid.*, p. III-16.

²⁴ *Ibid.*, p. III-19. See also FMFM 1-1, pp. 72, 75.

²⁵ Joint Pub 3-0, p. IV-19.

²⁶ *Ibid.*, p. III-21.

²⁷ Blumenson, *The Mediterranean Theater*, p. 13.

²⁸ FMFM 1-1, p. 39.

²⁹ Joint Pub 1, pp. 25–29.

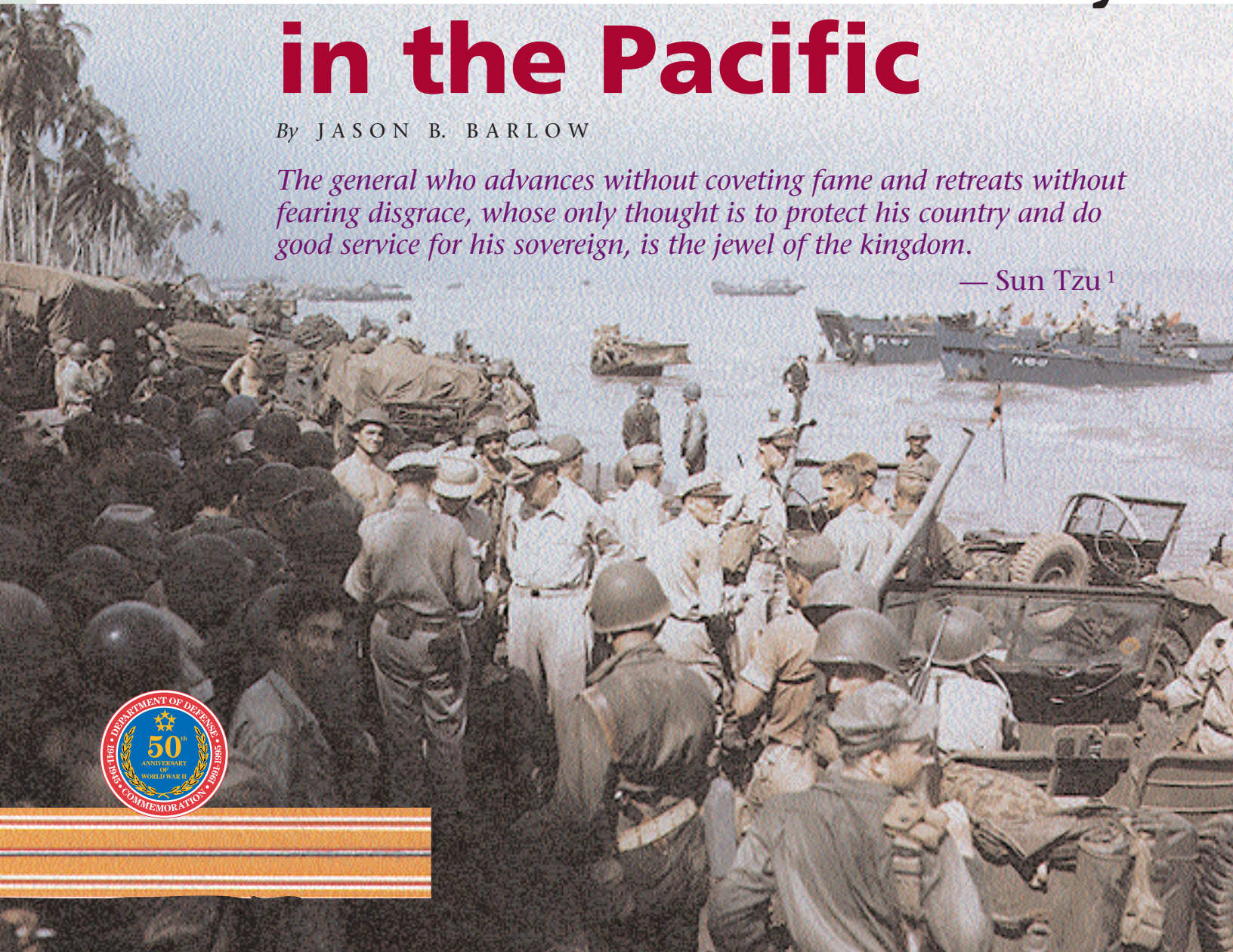
³⁰ "Tough Old Gut," *The World at War*, videorecording, vol. 13 (London: Thames Television in cooperation with the Imperial War Museum, 1980).

Interservice Rivalry in the Pacific

By JASON B. BARLOW

The general who advances without coveting fame and retreats without fearing disgrace, whose only thought is to protect his country and do good service for his sovereign, is the jewel of the kingdom.

— Sun Tzu¹



General MacArthur
inspecting beachhead
on Leyte.

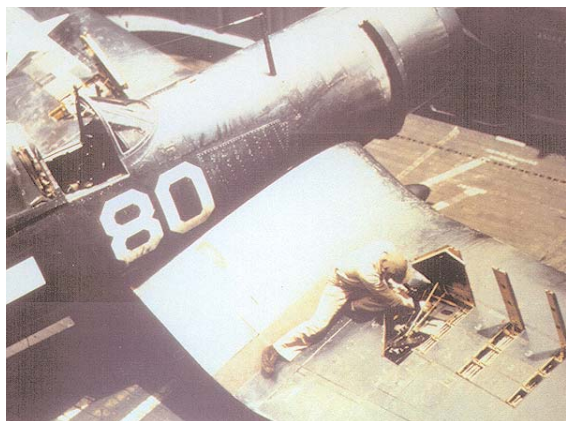
U.S. Navy

It was over fifty years ago that General Douglas MacArthur, on orders from President Franklin Roosevelt to save himself from certain Japanese capture, escaped from Corregidor for Australia. MacArthur's escape and newfound presence in the South Pacific triggered a chain of events that led to one of the more interesting and controversial decisions of the Pacific War: why did the United States adopt a divided command and

attack strategy against Japan? Unfortunately, the record shows that the division of Army and Navy forces in the Pacific was more a solution to satisfy interservice rivalries and personal egos than an example of sound military practice.

But the war is long over and the United States won. Why is this historical episode of any importance today? Because joint warfighting is the way of the future. Admiral

Marine working on
Vought F4U Corsair
aboard USS Block
Island off Okinawa.



U.S. Marine Corps

William Crowe, a former Chairman of the Joint Chiefs of Staff, put it this way:

I am well aware of the difficulty of shedding . . . individual service orientations and addressing the broader concerns of the joint arena. The fact is, however, that the need for joint operations, joint thinking, and joint leadership has never been greater as we meet the global challenges and in order to get the most of our finite resources.²

Our war against Japan was costly in lives and resources. To think that it might have been made even a greater hardship by the

inability of senior officers to share leadership and resources is disturbing, even if an effort on that scale had never been attempted.

the five weeks it took dividing the Pacific "had to be bought back in blood later"

The five weeks it took the Joint Chiefs to arrive at an interservice agreement dividing the Pacific "had to be bought back in blood later, because the enemy used them to capture and fortify the Admiralty Islands, Buka, Bougainville, Lae, and Salamaua."³

To joint warfighters of the future the action of these wartime leaders may sound incredible if not self-serving. The intention here is not to detract from the memories or accomplishments of these great men, but rather to ask why they made the choices they did. First, we need to look at why there was a need for unified command in the Pacific and how interservice rivalry negatively affected that decision. Second, we will

explore why some historians and participants found the lack of a unified strategy costly, inefficient, and unsound militarily. Finally, I will suggest some lessons I think any future military commander can learn.

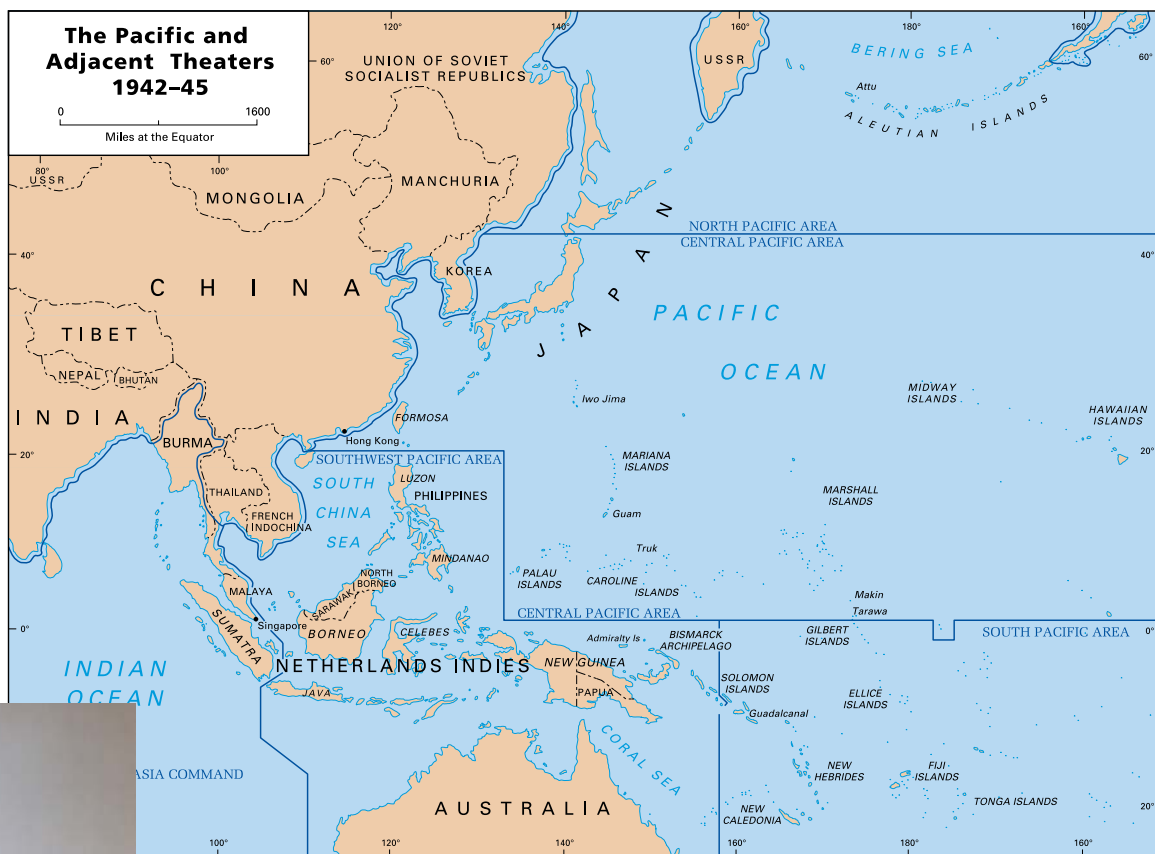
The Pacific War

At the outset of World War II the United States had four major commands in the Pacific, one each for the Army and Navy in the Philippines and in Hawaii. In both places the Army and the Navy commanders were independent and joint operations were a shaky proposition at best.⁴ After Pearl Harbor was attacked it became obvious that centralized direction and control over the forces would be desirable. As historian Louis Morton observes, unity of command was necessary as "there was no single agency in the Pacific to supply these forces, no plan to unify their efforts, and no single commander to mold them into an effective force capable of offensive as well as defensive operations."⁵ The Pacific had traditionally been a "special preserve" of the Navy, and the Army might have agreed to keep it that way if it had not been for the need to safeguard Australia against the encroaching Japanese. Australia's protection became primarily the Army's concern when Roosevelt authorized 80,000 men to sail for the southwest Pacific in early 1942.⁶

With both the Army and Navy now involved in the Pacific, the Joint Chiefs had the task of finding a Pacific theater commander. But who? Admiral Chester Nimitz, Commander of the Pacific Fleet, or General MacArthur, who was after his exploits in the Philippines a "war hero of towering stature?" It was no secret that the President and many influential members of Congress favored the appointment of MacArthur as supreme commander.⁷ But the Department of the Navy would have nothing to do with this suggestion.

Since the Pacific conflict was likely to involve naval and amphibious operations it seemed only proper to the Navy that the entire effort be directed by a naval officer. "Admiral Ernest J. King, Chief of Naval Operations, and his colleagues in the Navy Department staunchly argued that the Navy did not have enough confidence in [MacArthur]—or any other Army officer—to entrust the Pacific to the Army's command."⁸ The Navy thought that MacArthur "would probably use his naval force . . . in

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U.S. Army Center for Military History



USS Idaho bombarding Okinawa.

U.S. Navy

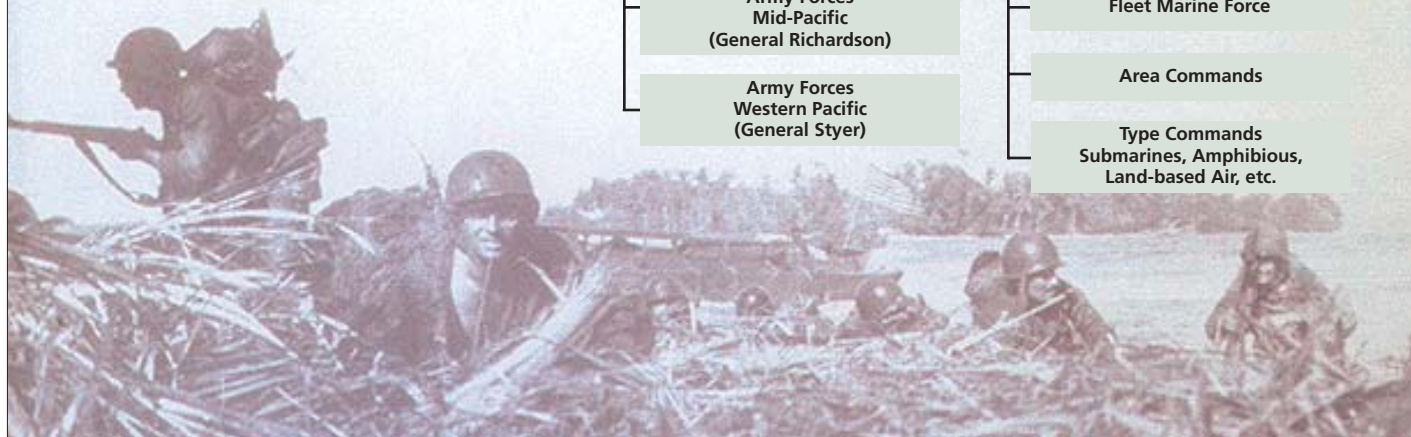
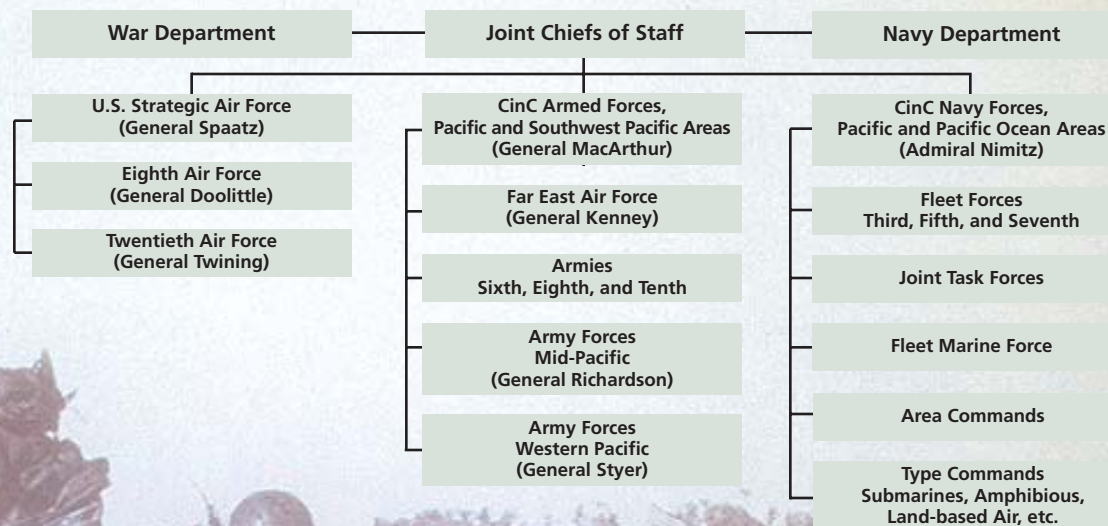
the wrong manner, since he had shown clear unfamiliarity with proper naval and air functions" in the past.⁹ This concern may have stemmed from MacArthur's defeat in the Philippines, where he lost most of his naval and air assets.¹⁰ The problem of choosing a naval commander was

further complicated by MacArthur's obvious seniority to any available admiral, his having returned to active service after retiring as Army Chief of Staff in 1935.¹¹ Unable to find a satisfactory solution and to "prevent unnecessary discord," the Joint Chiefs after five weeks of deliberations divided the Pacific into two huge theaters. MacArthur was appointed commander in chief of the Southwest Pacific Area which included Australia, the Philippines, Solomon islands, New Guinea, and Bismarck Archipelago. Admiral Nimitz would command the remainder of the Pacific Ocean except for coastal waters off Central and South America.¹² There would be no unified command in the Pacific, but rather two separate commands.

MacArthur would receive his orders from the Army Chief of Staff, and Nimitz from the Chief of Naval Operations.¹³ "In essence, the Joint Chiefs (now) acted as (their own) overall Pacific Commander."¹⁴ Little did they know "the traditional elements of careerism and doctrinal differences within the Armed Forces had combined to produce a monstrosity."¹⁵ Divided command may have been politically expedient but it was also to prove costly and inefficient.

"The command arrangements in the Pacific led to duplication of effort and keen competition for the limited supplies of ships, landing craft, and airplanes."¹⁶ And as control over the entire theater was vested in the Joint Chiefs, who in effect became the directing headquarters for operations in the Pacific, "it placed on the Joint Chiefs the heavy burden of decision in many matters that could well have been resolved by lesser officials."¹⁷ For example in March 1944, after successes in Rabaul and Truk, it took the Joint Chiefs "months of deliberation" to settle what would have been a simple matter

Pacific Command Organization Chart (August 1945)



Troops assaulting
New Guinea.

in theater there was no one authority to choose strategic options or to resolve conflicts

for a single commander—how to reapportion the force.¹⁸ Save for the President there was no single authority. The process operated as a committee rather than a staff, and command was diffused and decentralized, making decisions on strategy and theater-wide problems only available by time-consuming debates and compromises. In theater

there was no one authority to choose between strategic options or to resolve conflicts between MacArthur and Nimitz for manpower

and supplies, “no one to assign priorities, shift forces from one area to another, or concentrate the resources of both areas against a single objective.”¹⁹

How could great leaders have forgotten the fundamental of unity of command? One of the country’s leading experts on war felt that the decision to split the command in the Pacific Theater was a direct result of “service interests and personality problems.”²⁰ Unity of command is key in war to “vesting appropriate authority and responsibility in a single commander to effect unity of effort in

carrying out an assigned task.²¹ Frederick the Great espoused this idea when he stated: “It is better to lose a province than split the forces with which one seeks victory.”²² MacArthur even showed his dismay in a letter written after the war about this very issue:

Of all the faulty decisions of the war perhaps the most unexplainable one was the failure to unify the command in the Pacific. The principle involved is perhaps the most fundamental one in the doctrine and tradition of command . . . the failure to do so in the Pacific cannot be defended in logic, in theory, or even in common sense. Other motives must be ascribed. It resulted in divided effort, the waste of diffusion and duplication of force, and the consequent extension of the war with added casualties and cost.²³

As MacArthur pointed out, the real danger of split command was that it pitted Army against Navy for scarce resources and forced commanders into questionable positions of greater risk. Admiral Halsey’s daring raid on Bougainville in support of the Army’s advance was just such an example.

The large island of Bougainville at the northern end of the Solomons was the final link in the "iron chain" that the Allies were stretching around New Britain and Rabaul. The Japanese, having other plans, sent eight

cruisers and four destroyers in an effort to wipe out the advancing American forces. Halsey had only two carriers to support the Army since other major warships had been siphoned off to prepare for a new Navy offensive in the central Pacific. As Halsey later recorded, he fully "expected both air groups to be cut to pieces," and they probably would have been had the Japanese been more skillful and he less lucky. As it

turned out, he was successful thanks to favorable weather, Japanese mistakes, and the skill and courage of his carrier pilots. It seems Halsey "... would not have had to take desperate risks if the Americans had not been trying to do two things at once. They had needlessly divided their forces in the Pacific so that the weaker half could be menaced by a relatively small enemy force."²⁴

The Pacific generated many examples of interservice bickering, rivalry, one-upmanship, and downright nastiness. MacArthur and Nimitz were supposed to have cooperated but both men were strong-willed and highly opinionated. One senior naval officer referred to "the complete lack of coordination between Army and Navy as one of the worst managed affairs ever seen."²⁵ This rivalry for overall command continued throughout the war even though

both commanders had substantially the same goals.²⁶ An example is the campaign for Rabaul.

MacArthur and Nimitz argued long and hard over the capture of Rabaul. They agreed it had to be taken, but apparently neither trusted the other to command the joint force to do it. The Chief of Naval Operations thought that if any of his carriers came under Army command the whole role and

strategy of the Navy and his influence in the Pacific would be diminished.²⁷ MacArthur, on the other hand, had no trouble with the approach to Rabaul suggested by the Navy but demanded that, since the operations lay in his theater, he should command. The Joint Chiefs finally solved the argument by moving Nimitz's theater boundary one degree to include the island objective and then split up the rest of the operation with MacArthur.²⁸

MacArthur referred often to what he saw as a Navy cabal that plotted at every opportunity to prevent him from taking overall command of the Pacific War. The "Navy's obstinacy was part of a long-time plot to bring about the complete absorption of the national defense function by the Navy, (with) the Army being relegated to merely base, training, garrison, and supply purposes." MacArthur even took his case to the President in one instance, accusing the Navy of failing "to understand the strategy of the Pacific," and charging that "these frontal attacks by the Navy, as at Tarawa, are tragic and unnecessary massacres of American lives."²⁹ Others joined in the fray.

Comments by General St. Clair Streett, an air officer and a JCS staff member at the time, indicate he thought a single commander should have been appointed by the President. He went on to say: "At the risk of being considered naive and just plain country-boy dumb, the major obstacle to any 'sane military solution' of the problem was General MacArthur himself. Only with MacArthur out of the picture would it be possible to establish a sound organization in the area."³⁰ Moreover, Streett thought that with MacArthur out of the way, the Supreme Commander's job should go to an Army Air Corps or Navy commander, depending on who the President believed would have the dominant role in the war.

Are there any conclusions we can draw from these divisive moments? Certainly one of the first things that comes to mind is the importance of unity of command. As noted, MacArthur even admitted after the war that the lack of a single commander in the Pacific "resulted in divided effort, the waste of diffusion and duplication of force (and) undue extension of the war with added casualties and cost."³¹ Secondly, we can appreciate that no commander is so priceless that he



U.S. Army

Army mortar firing
at Japanese on
Bougainville.

**no commander is so priceless
that he cannot be replaced**

cannot be replaced. This should be especially true when his popularity (such as MacArthur's at the time) threatens his superior's ability to make rational decisions about his service. Seemingly all decisions the Joint Chiefs made had to be weighed foremost against the consequences of offending either a personality or his "service." Finally, we have to learn how to fight jointly. Congress had mandated it and Desert Storm validated it. As for the Pacific, it was only "because of our material superiority (that) the United States could afford such expensive and occasionally dangerous luxuries as a divided command...in its war with Japan."³² Given our finite resources, it seems unlikely that we could afford to fight a divided, multiservice war again.

Today's often innocent banter of interservice competition can be healthy and productive up to a point. That point is reached when lives or country are at risk. The military leaders of the future must learn to work and fight together or we will surely, at the very least, risk losing the confidence of the American people. Sandwiched between determined personalities and unable to shake loose from their own service interests, the Joint Chiefs deliberately chose a divided strategy of dual command in the Pacific. America cannot afford waging war by service for the sake of appeasing service pride or delicate egos. Clayton James, in his authoritative work on MacArthur, said it best: "There can be no substitute for the essential unity of direction of centralized authority. The hardships and hazards increasingly resulting were unnecessary indeed."³³

JFQ

NOTES

¹ Samuel B. Griffith, *Sun Tzu: The Art of War* (New York: Oxford University Press, 1971), p. 128.

² Air University Press, *Conventional Warfare*, vol. 8 (Maxwell Air Force Base, Ala.: Air Command and Staff College, January 1991), p. 3.

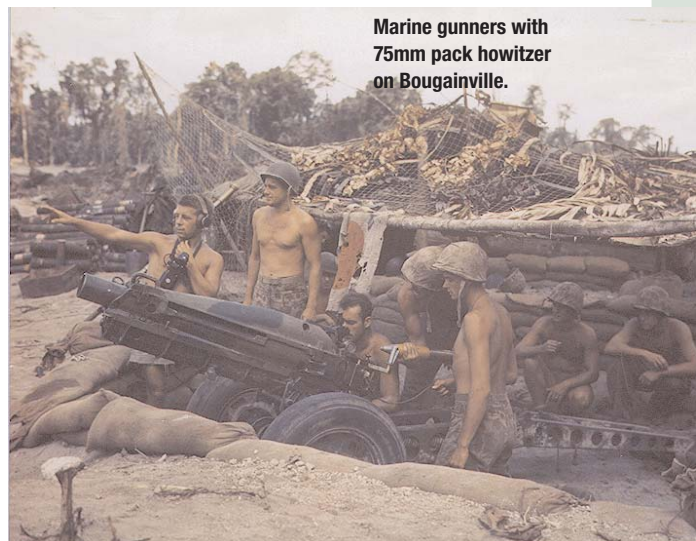
³ William Manchester, *American Caesar* (Boston: Little, Brown, 1978), p. 282.

⁴ Louis Morton, "Pacific Command: A Study in Interservice Relations," *Harmon Memorial Lectures in Military History*, no. 3 (Colorado Springs: U.S. Air Force Academy, 1961), p. 3.

⁵ Louis Morton, *U.S. Army in World War II: The War in the Pacific*, vol. 10, *Strategy and Command: The First Two Years* (Washington: Government Printing Office, 1962), p. 240.

⁶ Ronald H. Spector, *Eagle Against the Sun: The American War with Japan* (New York: Free Press, 1985), p. 143.

⁷ *Ibid.*, p. 144.



Marine gunners with 75mm pack howitzer on Bougainville.

U.S. Navy

⁸ Clayton James, *Command Crisis: MacArthur and the Korean War* (Colorado Springs: U.S. Air Force Academy, 1982). Louis Morton agreed MacArthur was the "outstanding commander" in the Pacific. See Morton, *Lecture*, p. 7.

⁹ Spector, *Eagle Against the Sun*, p. 141.

¹⁰ Manchester, *American Caesar*, pp. 212–16.

¹¹ Spector, *Eagle Against the Sun*, p. 144.

¹² John Costello, *The Pacific War* (New York: Rawson, Wade Publishers, 1981), p. 225.

¹³ Morton, *The War in the Pacific*, p. 250.

¹⁴ John H. Bradley and Jack W. Dice, editors, *The Second World War: Asia and the Pacific* (Wayne, N.J.: Avery Publishing Group, 1989), p. 102.

¹⁵ Spector, *Eagle Against the Sun*, p. 145.

¹⁶ *Ibid.*, p. 145, and Morton, *The War in the Pacific*, pp. 40–43.

¹⁷ Morton, *The War in the Pacific*, p. 145.

¹⁸ Morton, "Pacific Command," p. 23.

¹⁹ Morton, *The War in the Pacific*, p. 250.

²⁰ Morton, "Pacific Command," p. 26.

¹⁹ Morton, *The War in the Pacific*, p. 250.

²⁰ *Ibid.*, p. 250.

²¹ U.S. Department of the Air Force, *Basic Aerospace Doctrine of the United States Air Force*, Air Force Manual 1–1 (Washington: Government Printing Office, 1984), p. 2–8.

²² Barbara W. Tuchman, *The Guns of August* (New York: Macmillan, 1962), p. 35.

²³ James, *Command Crisis*, p. 123.

²⁴ Spector, *Eagle Against the Sun*, pp. 240–49.

²⁵ *Ibid.*, p. 179.

²⁶ Bradley, *Asia and the Pacific*, p. 122.

²⁷ *Ibid.*

²⁸ Spector, *Eagle Against the Sun*, p. 185.

²⁹ Costello, *The Pacific War*, p. 449.

³⁰ Morton, "Pacific Command," p. 15.

³¹ James, *Command Crisis*, p. 123.

³² Spector, *Eagle Against the Sun*, p. 560.

³³ James, *Command Crisis*, p. 123.

³⁴ Morton, "Pacific Command," p. 3.

³⁵ Morton, "Pacific Command," appendix, chart 3.

Grave of a Dozen Schemes

By H. P. WILLMOTT



Naval Historical Center

The British Chiefs in January 1943 at the Casablanca conference (seated, from left): Air Chief Marshal Sir Charles Portal, Chief of Air Staff; Admiral of the Fleet Sir Dudley Pound, First Sea Lord; the Prime Minister; Field Marshal Sir John Dill, Head of the British Joint Staff Mission to Washington; and General Sir Alan Brooke, Chief of the Imperial General Staff (and Chairman, Chiefs of Staff Committee).

Over the last decade or so a number of impressive works have added to our knowledge of the formation of Allied strategy and the functioning of the anti-Axis alliance during World War II. Callahan, Hayes, Homer, and Thorne¹ have rolled back the frontiers of knowledge, although the role of Britain in the war against Japan remains largely neglected and little understood. This lack of appreciation is partly because of the way in which British policy evolved. The strands of continuity and clarity have been lost amid the interminable intricacies of Combined Chiefs of Staff meetings, the adagio rustle of forms in triplicate, and the baffling list of unpronounceable place names spread across the Pacific. But one suspects with regard to Britain's role in the Pacific that another factor is at work: the death of those involved and decrease in British power and influence in the Far East which have resulted in an accompanying contraction of interest.

The following article is divided into two parts: a definition of problems which beset the development of British policy and an examination of the main features of policy as it evolved. But to define such problems one must begin by noting that in the evolution of British policy there are two distinct phases, the watershed between them being September 1943. In the first

phase, between December 1941 and September 1943, the British were forced to respond to events beyond their control and to fight where they were rather than where they would. This meant, in effect, the border between India and Burma. In the next phase, during and after September 1943, the element of choice entered into British calculations because the surrender of the Italian fleet and the crippling of *Tirpitz* freed British naval forces from home waters and the Mediterranean for service in Asia as Britain turned its attention to the questions of when, in which theater, and with what forces she should expand efforts against Japan. (In so doing, these questions revolved around the issue of employing the fleet, the element of choice in British policy proved not as great as first appeared, partly as a result of residual commitments made prior to September 1943.)

**despite a global presence
Britain lacked global power**

With respect to this first phase, from December 1941 to September 1943, the basic terms of reference for the British in settling policy were determined by the events of the first six months. Between December 1941 and May 1942, Britain suffered a series of defeats in Asia: specifically, in Borneo, Hong Kong, the southwest Pacific, Malaya, and Burma. The defeats carried home certain in-

escapable facts: that despite a global presence Britain lacked global power, that her operational timetable for the war

against Japan had to wait on events in the German war, that the Mediterranean theater had second claim on resources and attention, that the Indian Ocean and southeast Asia by extension held no more than a tertiary position among priorities, and that the Pacific in effect had no standing whatsoever. It is in this context that the negative British view of Burma took shape. For the high command in London, Burma had no political, military, or economic value that made reconquest mandatory. The British view, ironically, was a mirror image of that of the enemy. For Britain and Japan alike the Chindwin River and Bay of Bengal formed a line of mutual exhaustion, convenient to both. Neither had the means to undertake offensive operations in these theaters, and both protagonists would have preferred—if left to their own devices—to have accepted a stand-off there in order to devote resources and attentions to other, more important theaters. However, Burma had value for the Allies that demanded the commitment which the British did not want. But Britain was one of the real losers at Pearl Harbor: the United States entered the war as the dominant influence in Asia and had the means to lead with respect to prosecuting the war. The United States, of course, entered the war with a two-fold agenda regarding China: to prepare the Chinese for a large-scale offensive on the mainland, and to ready southwest China as a base for air operations against territories occupied by Japan on the

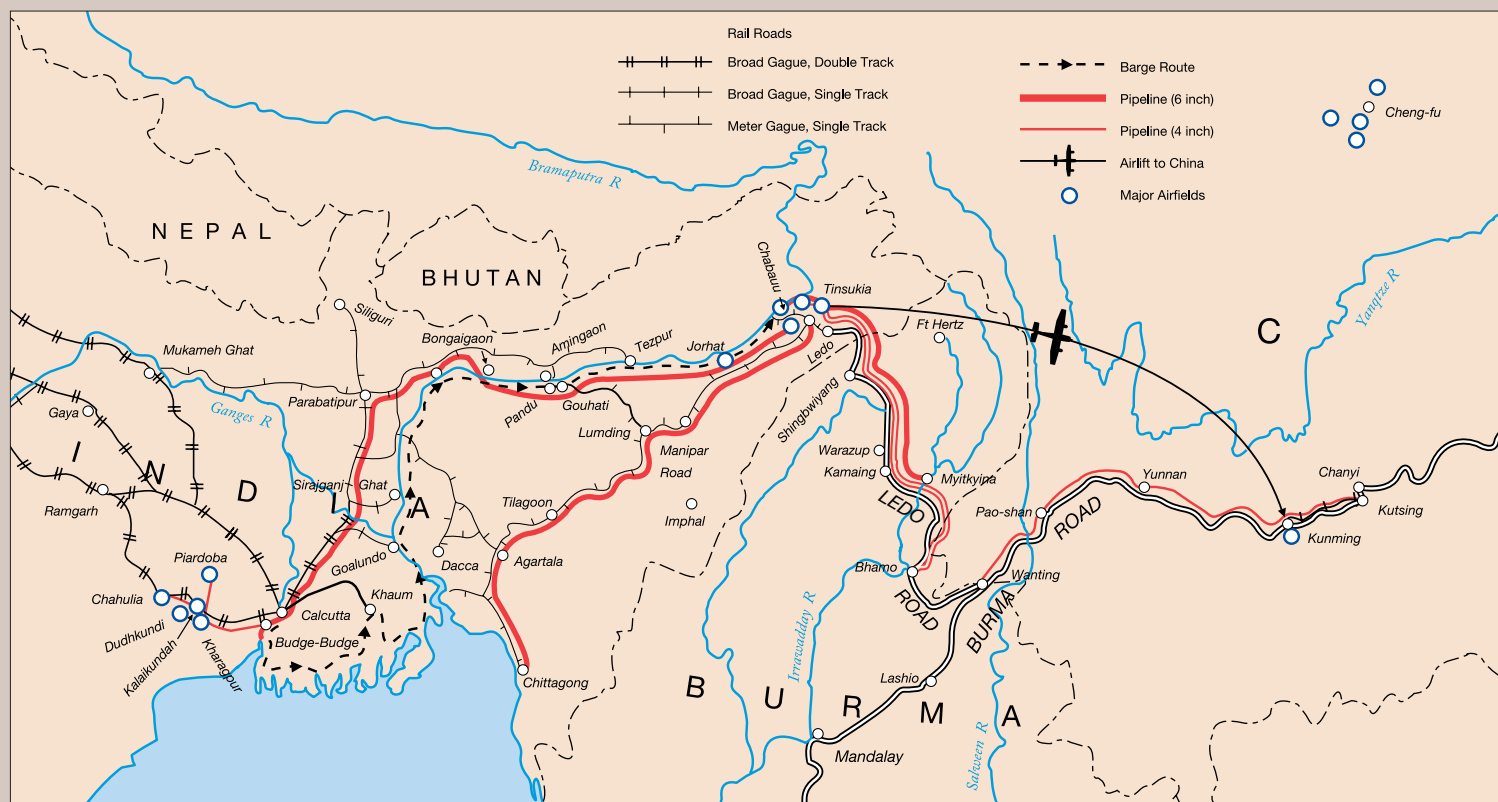
mainland and against Japan's home islands. To Washington, China was essential to the Allied war effort, and it was therefore critical to restore overland communications with Chungking. These communications could only be through Burma, and thus Burma had to be reconquered for this very reason.

Leaving aside the obvious fact that Britain did not agree with America's view of the value of China to the war effort, American attitudes gave rise to three sets of related problems. The two strands of U.S. policy—ground and air designs for China—were supposedly complementary, but they were in fact in rivalry. There were also problems in ordering priorities and difficulties directly associated with reestablishing overland communications. The second and third problems had their basis in geography and conditions in northeast India and Burma. In terms of priorities, northeast India lacked the administrative infrastructure for maintaining an invasion of Burma or an airlift to China. The needs of both an offensive into Burma and an airlift to China were mutually exclusive, but efforts to develop northeast India for either or both could not take precedence over them since both initiatives had to be taken immediately and simultaneously. This constituted, in brief, a clash between political imperatives and military necessity that was never to be properly resolved.

The problems associated with the reestablishment of overland communications with China crystallized at various levels. As far as the British high command was concerned there was not any prospect of significant deliveries to China being possible before 1946 or 1947, by which time the impact of China on events would be marginal. With only some 6 percent of Allied ground troops in southeast Asia in the engineers (compared with 16 percent in the southwest Pacific), the service support needed for a Burma offensive was unavailable. Aside from support to develop resources for the airlift in northeast India, the engineers required for an advance into Burma were the same needed to develop lines of communication that would support the advance itself. Moreover, as British staffs made their calculations, it transpired that if a road through Upper Burma was secured but the enemy remained intact in Central Burma, then the logistical requirements of the forces guarding the road to China would

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China-Burma-India Line of Communications (July 1945)



The line stretched from dockside in Calcutta to unloading stands at Chinese airfields.

Source: Charles F. Romanus and Riley Sunderland, *Time Runs Out in CBI. The China-Burma-India Theater. U.S. Army in World War II* (Washington: U.S. Army Center for Military History, 1985).

equal the carrying capacity of the road itself. Such considerations convinced the staffs that the idea of pushing a road south from Ledo to join the old Burma Road near Bhamo was nonsense,² but that was as much a rationalization as a reason since they had no real interest in a campaign in Burma *per se*. For the high command Burma represented a hazardous and uncertain undertaking because it would involve a long, exhausting approach through mountains and forests of the border area against an enemy which could choose where, when, and how to counterattack as well as make choices based on good and secure lines of communication.

Operation Anakim

To counter this Japanese advantage of position, the U.S. high command argued that conveying attacks should be mounted to convene along external lines of communication.

But Britain noted that the success of this solution depended on the Chinese in Yunnan, and they could only contribute effectively if first supplied by the very road their efforts were intended to open. This Catch-22 situation was just one case of the phenomenon whereby for each American solution there was an unanswerable British objection,³ a conundrum that was only one aspect of an insoluble Allied dilemma. If Britain moved into Upper Burma and went on the defensive, then the resultant commitment would be greater than their commitment in Assam and Manipur and could not be sustained based on current or planned resources. Moreover, the alternative to a long-term defensive commitment in Upper Burma was to attempt the reconquest of Burma overland from the north. Until October 1944 this was rejected by the Allied planners as unrealistic. Even if a road south from Ledo to Bhamo was opened, it would extend no further than 250 of the 750 miles to



CODE WORDS

ANAKIM Plan for recapture of Burma.

CULVERIN Plan for assault on Sumatra.

DRACULA Plan for assault on Rangoon.

QUADRANT U.S.-British conference at Quebec, August 1943.

OCTAGON U.S.-British conference at Quebec, September 1944.

OVERLORD Allied cross-Channel invasion of northwest Europe, June 1944.

SEXTANT International conference at Cairo, November–December 1943.

TRIDENT U.S.-British conference at Washington, May 1943.

Rangoon and Allied planners accepted that an advance of 500 miles without an effective line of communication was not feasible.⁴ Given this calculation, the British believed the only way that Burma could be retaken was by a campaign involving holding operations in Upper Burma, securing the Arakan for its airfields, and an assault

landing at Rangoon followed by an advance through the Irrawaddy and Salween valleys and a battle of encirclement and annihilation in Central Burma (Operation Anakim). But the conceptual problem here was that if Britain indeed acquired the means to conduct

Anakim then she had every incentive not to do so. For Britain there were other, more prestigious and valuable targets than Rangoon to attack in southeast Asia, and if the Japanese held Burma in strength—as indeed they did—then there was every reason to bypass rather than to reconquer it. This was the gist of the Culverin alternative with landings in northern Sumatra and Malaya that were to end with the recapture of Singapore. But that idea, although sound, was never practical. The army in India, at least prior to February 1944, was of uncertain quality and could not be reinforced from Europe.⁵ Neither amphibious nor naval forces were available on the necessary scale until Germany and Italy were defeated, and crucially the Americans would not accept any strategy that left the Burmese situation unchanged.⁶ Moreover, India could not maintain either the amphibious shipping or naval forces required for the operation; also, India was fully committed to the needs of the Chinese airlift and support operations from Assam and Manipur into Upper Burma. By any standard, however unexacting, when it came to policy, Britain found itself snookered.

In the second phase of policymaking, after September 1943, the British high command was to find that its attitude toward America was thrown into confusion, and strategic deliberations were all but wrecked, by a quickening of the war that presented Britain with mutually exclusive options. Churchill feared the uses to which U.S. power could be put in the post-war world, and he clearly resented dependence on and loss of the power of decision to America. Much of his behavior at this time conformed to the de Gaulle syndrome, the penchant for increasingly divisive activity as the power of decision diminishes. Churchill believed that, because the Americans could defeat Japan and could do it without the support of an ally, and because American primacy in the Pacific left Britain without a role in the theater, Britain had to turn to southeast Asia to expunge the shame of defeat. Britain had to recover her colonies and not by depending upon American largesse. The British Chiefs of Staff, on the other hand, saw in the United States an ally to be supported rather than a power against which provisions had to be made. The chiefs believed that the priority had to be putting an end to the war against Japan quickly and that recovering

British 14th Army Offensive (December 1944–May 1945)



Source: Charles F. Romanus and Riley Sunderland, *Time Runs Out in CBI: The China-Burma-India Theater. U.S. Army in World War II* (Washington: U.S. Army Center for Military History, 1985).

colonies after the hostilities was as good as fighting for them. They also believed that an effort in the main theater held the best chance for ending the war, that a naval commitment in the Pacific would be cheaper in manpower, and that an all-out effort in the Pacific would stand Britain well in securing post-war American aid.

The views of Churchill and the chiefs were mutually exclusive because there were no bases from which their forces could operate in both the Indian and Pacific Oceans.

But as both sides considered options they were compelled to admit the imperial connection. It was increasingly recognized that India was at the end of her tether and could not shoulder an increased commitment; that Canada had no interest in an imperial venture as she pursued her own bilateral arrangements in the Pacific with the United States; that New Zealand was unable to provide effective support for a British effort. In short, both Churchill and the chiefs knew that there was a reversal of the traditional relationship whereby Britain relied on imperial support: instead India and the dominions looked to Britain for forces to lighten their loads. But, while the high command was sympathetic to India,⁷ prepared to indulge Canada, and willing to support New Zealand, Australia was in a category by itself.

The View from Down Under

The exchanges between Britain and Australia were ambiguous, but the ambiguity was laced with suspicion and disdain. There can be little doubt that Churchill viewed all things Australian with disdain. This antipathy toward Australia extended to refusing to inform the dominion of the Sextant agreement, to enter into policy discussions with Australia, and even, at the dominion prime ministers' conference in May 1944, to pass relevant discussion papers to the Australians until it was too late for them to be read before the meetings. Fueling this animosity was a British Treasury that insisted that Australia pay through the nose for everything and denied terms that were available to Canada and New Zealand.

The Chiefs of Staff and Royal Navy were not beyond trying to treat Australia as a colony that would do what it was told. The most obvious example of this condescending attitude was the attempt to send a mission to Australia to report on that country's reception facilities without any reference to the Australian government, an effort that was vigorously resisted by a dominion which resented the slur on its civil service and the reports it had already forwarded to London. Moreover, the Royal Navy had little regard for the Royal Australian Navy which it regarded as crippled by the Australian Treasury and plagued by an appalling staff. Only the ordnance branch was regarded as competent, and the general view of Australia and its

naval administration on the part of Royal Navy liaison teams was somewhat jaundiced, amusingly so to anyone but an Australian.

In strategic policy, moreover, Anglo-Australian relations were somewhat schizophrenic. While Australia resented being excluded from policymaking and ensured MacArthur's South West Pacific Command against any attempted takeover by the British, some members of the Australian high command saw a British return to the Pacific as a counter to

being discarded by America as the battle moved away from Australian shores.⁸ These Australians believed their country had carried the imperial banner in the Pacific since 1942

and wanted a British and imperial effort to compensate for Australia's progressive weakening as World War II entered its fifth year.

The British chiefs and even Churchill were aware of the immense effort that Australia had made and the manpower and financial problems which she faced in 1944.⁹ That year opened with the British staff planning to send six divisions, lift for three divisions, a fleet with fifteen carriers and eight battleships,¹⁰ and 140 RAF squadrons to the Pacific, some 675,000 military personnel plus labor and support workers pencilled in for movement to Australia. Inevitably, the British saw such forces as the means to take over South West Pacific Command, a view that revealed first a misunderstanding of MacArthur's position within the American high command and then a misunderstanding of the American willingness to discard this command with its problems in the final phase of the war. No less inevitably, but unfortunately, for much of 1944 London saw Australia as a land of plenty, which it simply was not. It was true that Australia was so chaotically organized that she built her first combat aircraft before her first motor car, but it was the shortages that finally so impressed London in the course of 1944.

Australia was, of course, hopelessly placed as a base for forces the British planned to send to the Pacific, and one notable exchange was over a statement that Britain could not supply 5,000 dockyard workers needed to service and maintain British ships sent to the Pacific: Australia replied that failing to send workers would have unfortunate

consequences for the warships concerned. As 1944 unfolded it became clear in London that if British forces were to proceed to Australia then everything—from building materials and prime movers to hospital equipment and workers of every description—would have to be sent to Australia, and such resources were not available. At the same time the Royal Navy calculated that shortages of air groups meant that no more than three fleet carriers could be maintained in the Pacific,¹¹ and it was forced to deal with the difficulties presented by the lack of an oceanic fleet train. But to pre-stock an Australian base in readiness for the arrival of the fleet and have an oceanic fleet train on hand, merchant vessels would have to be taken from service—for refitting and the run to Australia—when Britain could not meet minimum import requirements. This was also a time when the demands on the merchant fleet would increase with the invasion of Europe, and when it was realized for the first time that paradoxically demands on British shipping would increase still further with the surrender of Germany.¹² To compound matters, British plans in 1944 assumed that it would take between 11 and 18 months to prepare an Australian base; yet in the course of 1944 Britain was caught between a lengthening of the war with Germany into 1945 as plans to end the war with Japan were moved forward at least into 1946.

Thus the shortage of Australian resources was only one aspect of the problems that in 1944 resulted in a major change in British policy. In the course of that year the army commitment all but vanished: it appeared MacArthur would not accept Indian army divisions in the southwest Pacific and the British high command realized that post-war occupation duties in Europe would preclude any significant reinforcement of the Far East. The sheer scale of American air power in the Pacific meant that the RAF in effect was discounted from serious consideration. A fleet train was improvised but only at the cost of abandoning amphibious ambitions which was in part unavoidable: amphibious shipping was largely shore-to-shore rather than ship-to-shore in the Pacific. Postponing Overlord, failing to secure a working port until November, and lacking 125,000 sailors for a corps-sized lift

the sheer scale of American air power in the Pacific meant that the RAF in effect was discounted

conspired to kill the amphibious option.¹³ During 1944, therefore, the navy changed from being the first of the services that were to arrive in the Far East to being the only one likely to arrive before the defeat of Japan was brought about, with all the political and psychological overtones that entailed. This fact, combined with the absence of a common basis for an Indian Ocean strategy and a Pacific strategy, explains why the struggle within the high command was so difficult, bitter, and protracted.¹⁴

In terms of unfolding events, the period between May 1942 and May 1943 was marked by a frantic build-up in northeast India and start of the airlift, acceptance of the Anakim plan by both the United States and China as a basis of strategic policy in February 1943, and the disaster of the first Arakan offensive. The latter is the dominant event and it is often argued that it was the

failure of first Arakan that pushed Britain into Culverin. This was partly true, but in reality the Culverin proposal was on the table in September 1943 prior to the first

Arakan offensive. It had taken shape and commanded considerable support well before disaster overwhelmed the 14th Indian Division in the Arakan. Culverin gained support on a number of counts: a realization that the Arakan offensive would fail; a desire to cut communications between Singapore and Rangoon; a belief that Culverin would involve fewer resources; and least credibly, an idea of the double envelopment of resources. The landings in Sumatra and Malaya were to be accompanied by landings on Timor.

Culverin and the Middle Strategy

With or without the Timor absurdity, the Culverin concept was total nonsense. If northern Sumatra had been occupied Britain would have had two open-ended commitments when she could not handle one. Securing northern Sumatra as a base for air operations made little sense if no heavy bombers were available. The plan could not be effected before the war in Europe ended and did nothing vis-à-vis Burma. Critically, the Culverin plan left no proposal for 1943–44 campaigning in Burma which was patently obvious between May 1943 (Trident) and August 1943

(Quadrant): in fact between the conferences London abandoned Culverin as impracticable. But the conferences were critical in formulating Allied policy for the war against Japan, and the British held a weak hand. They had no proposals to make and only traditional standbys to disguise their position: appearing to act (such as in creating South East Asia Command), observing the consent-and-evade principle, and putting on center stage a light-weight irrelevance from the royal family to distract attention.

The finesse failed. British histories point out that Americans were favorably impressed by Mountbatten and Wingate, but that did not stop the United States from getting a higher priority for the war against Japan. With regard to the Chindits the Americans argued that if the British did so much with so little what might they not achieve if they really tried, especially if a second Chindit operation in the 1943–44 campaigning season had U.S. air support. The British accepted the offer without realizing the consequences. From the time the offer was accepted America controlled the operational timetable and Britain could not avoid an Upper Burma commitment in 1943–44.

There was, however, a twist or more accurately three twists. At Quadrant the United States proposed and Britain accepted—under the consent-and-evade principle—that future Allied planning should be based on the premise of the defeat of Japan being achieved within twelve months of that of Germany, the latter set for October 1944. Thereafter Churchill offered a fleet for immediate service in the Pacific, trying to withdraw the offer when it became apparent that the fleet could not be sent. Moreover, as the British considered the implications of the Twelve-Month Plan it became clear that if the Americans were to arrive in the western Pacific in early 1945, then China ceased to have any relevance. If China could be discounted from serious consideration so too could Burma. Thus within three months of discarding Culverin as impracticable the high command rediscovered the operation as its only option in southeast Asia—not that America agreed. Even more strangely, as British and American plans considered the little known WXYZ Options, the U.S. Navy came to view that the

the Americans offered the British a real part in the Pacific war



Naval Historical Center

British inspection party visiting the Solomons.

Royal Navy was "considered necessary . . . to improve the prospects of destroying the Japanese fleet, of capturing the Mandates . . . and of taking the Marianas." So it offered to support a British fleet with bases, aircraft, and common-user supplies and to maintain any British amphibious force sent to the Pacific as long as a carrier force was on station in the central Pacific by mid-1944. In effect, the Americans offered the British a real part in the Pacific war as part of a coordinated Allied strategy. Yet the British turned down or, more accurately, did not respond to the offer. America kept the offer open until withdrawing it on November 2, 1943, never to make it again. It would seem, however, that the Chiefs of Staff, for whom matters in the Pacific were very much small change at this hectic time but who seem to have belatedly realized what happened, set about trying to secure the role that they were offered. At Sextant they appear to have given an unofficial undertaking to the United States that the fleet would be sent to the Pacific.

The period January–August 1944 saw the British high command hopelessly divided on this and related issues. The chiefs sought the Upper Burma and Pacific commitments on the basis that one was unavoidable and the other desirable; Churchill sought an amphibious strategy in the Indian Ocean, specifically Culverin. By April, after four months of deadlock, there emerged the Middle Strategy, which would use western Australia as a base for an offensive into the Lesser Sundas and then against Singapore from the east or to

the western Pacific for a rendezvous with the Americans. To this writer's knowledge only three histories or papers have ever given any consideration to the Middle Strategy, which has been portrayed as an attempt to split the difference between two views. It was no such thing. The Middle Strategy was a quite deliberate attempt by planners, specifically the Strategic Planning Section of the Joint Planning Staff (JPS), to break Churchill's opposition to a Pacific strategy by trapping him into a commitment to send forces to Australia thereby killing the Indian Ocean option. The rationale was the forthcoming imperial conference and the need for a policy to set before the dominion prime ministers. Churchill and the chiefs provisionally accepted the Middle Strategy on this basis, and set about selling it to Australia and New Zealand even as the JPS suppressed reports confirming the Middle Strategy as a non-starter. With the Antipodes having endorsed the Middle Strategy, JPS then abandoned it demanding a Modified Middle Strategy that, based in eastern Australia, could in turn be dropped in favor of a full-fledged Pacific commitment. The result was perhaps predictable. Churchill violently repudiated the Middle and Modified Middle Strategies and swung back to Culverin, despite the fact it had been abandoned as impracticable for a second time in the interim. To boost his position Churchill recalled Mountbatten, but in a series of decisive meetings in August 1944 Mountbatten refused to back Culverin and said that the Burma commitment was unavoidable and that the fleet should go to the Pacific—exactly as the chiefs had demanded for seven months. There was, however, a catch. To clear Burma, Anakim was revived, and this was wholly unrealistic because it called for a landing at Rangoon with seven divisions which was as large as Normandy, with all that implied. Moreover, India could not despatch seven assault divisions, and if Mountbatten tried to counter this objection by suggesting that the assault divisions could be despatched directly from Liverpool, the idea of a Rangoon landing (Dracula) went against the basic premise of British planning that simultaneous naval and amphibious commitments could not be met, and most certainly not in different oceans.

The question is why the chiefs accepted this nonsense. The answer is obvious: with the Octagon conference one month off London had to have something and this plan provided a Pacific commitment. The real reason, however, became clear en route to Quebec for the conference when the Directors of Plans sent a memo to the Chiefs of Staff that indicated that while Dracula had been proposed to distract the Prime Minister from Istria and Vienna they had not anticipated that it would ever be authorized. Now that it had, how was it to be implemented? In fact the directors already had made certain arrangements.

A series of highly classified signals to Washington had instructed the Joint Staff Mission to explain Dracula to the Americans and to ask for air support and assault shipping but on no account to raise the issue of force requirements. Their intention was to secure an American endorsement of Dracula and ensure U.S. involvement in the operation and then, with the

commitment firm, to request troops. If America agreed Britain would be off the hook, and if they refused Dracula would duly fall by the wayside. In either case the British would be safe. It is clear that Dracula was never intended to be implemented.

Where the fleet would serve in the Pacific was the last aspect of policy to be decided. The chiefs wanted the fleet to operate in the central Pacific, but the Americans made it clear they wished to see the British fleet employed in the southwest Pacific. But the British would not be confined to what amounted to a side show. Thus when the Americans stated their position, the British had the advantage. As the minutes of meetings conducted en route to the Octagon conference record, once the American chiefs formally stated their wish, the British chiefs were prepared to pass the matter to Churchill to ensure that their views prevailed, but things never came to that. British policy was settled: a commitment to Upper Burma that no one

in the high command really wanted, a landing at Rangoon that was included in the plan because it would not be carried out, and a central Pacific commitment that was beyond Britain's means.

The postscript was full of irony. Between November 1944 and August 1945 Burma was reconquered by means of an overland advance from northeast India. A British carrier fleet served off Okinawa and the Japanese home islands with credit. Dracula was carried out. All those things that could not have been attempted were accomplished, but it was Dracula that provided final and appropriate comment on British policy, and for two reasons. The operation was executed not with seven divisions but with seven battalions, and it was directed not against the main Japanese base in Burma but a city abandoned by the enemy. Nothing better illustrated the chasm between intentions and capabilities, or between purpose and result, than Dracula. But perhaps more appropriate is the fact that the operation was the last British amphibious operation of World War II. And there can be little doubt that it was wholly right and fitting to carry out Dracula against Rangoon—a city whose name is an anglicized corruption of the Burmese *Yan Gon* meaning “end of strife.”

JFQ



U.S. Navy (Wayne Miller)

Naval officers questioning Japanese prisoner of war.

NOTES

¹ The works include: Raymond Callahan, *Burma, 1942–1945* (Newark: University of Delaware Press, 1979); Grace Person Hayes, *The History of the Joint Chiefs of Staff in World War II: The War Against Japan* (Annapolis: Naval Institute Press, 1982); D.M. Horner, *High Command: Australia and Allied Strategy, 1939–1945* (Sydney: Allen and Urwin, 1982); and Christopher Thorne, *Allies of a Kind: The United States, Britain, and the War Against Japan, 1941–1945* (Oxford: Oxford University Press, 1979).

² American engineers confounded British calculations by pushing to Yunnan much faster than estimated, but given the quickened pace of U.S. advances across the Pacific to little avail—not that Chungking had any intention of exerting itself against the Japanese when the resumption of the civil war in China was at hand.

³ It should be noted that part of the problem was that these emerged in succession: there was never an occasion when all matters could be seen and settled, but policy took the form of a series of *encounter battles*. Undoubtedly, this type of Anglo-American difficulty was serious in that successive difficulties bred mutual exasperation.

⁴ In the author's view the argument that air supply could and did square the circle falls on two counts: that the advance of 1945 was primarily the result of Japanese resistance being previously broken and not in the course of the advance on Rangoon, and that the advance is notable for its avoidance of major engagements other than

at Mandalay and Meitkna. Air supply proved effective in the advance on Rangoon in large measure because the set-piece battle was fought and won around Kohima and Imphal in India, not within Burma.

⁵ While the 4th Indian Division was perhaps the best British empire unit of World War II, the effectiveness of Indian army units largely depended upon local, village, and personal loyalties. Dilution of these loyalties given the tenfold expansion of the army between 1939 and 1942, plus disastrous defeats in 1941 and 1942 that were continued with the first Arakan debacle, cast doubt on the Indian army which lasted until the Japanese were defeated in early 1944.

⁶ Preparing amphibious operations in the Indian Ocean could only proceed if specialist troops were diverted from northeast India, and the Americans were always wary of endorsing any amphibious proposal for fear that a closing-down of Upper Burma options in order to provide for an amphibious operation would be followed by the latter being abandoned at some stage with the result that no offensive operation would be staged in this theater.

⁷ The severe industrial and economic exhaustion of India by early 1944 was compounded by the Bengal famine which claimed about 1,500,000 lives (as opposed to *usual* annual loss of about 400,000) and disastrous floods in eastern India. To make matters worse, Australia suffered one of the worse droughts on record in 1943–44 and could not make good India's food shortages.

⁸ As for their American opposite numbers, most Australians admired the Navy and Army Air Force and came to hold a quiet regard for the Army and Marine Corps. But they had what can only be described as contempt and loathing for MacArthur, personally and professionally, that was exceeded only by their feelings for his staff.

⁹ By 1944 half of Australia's male population of 18 to 40 year-olds had volunteered and some 73 percent of all males over the age of 14 engaged directly in the war effort which exhausted the nation. Along with New Zealand, with more or less similar statistics, Australia made perhaps the greatest relative effort of the Allies in terms of manpower. Britain was only slightly behind her dominions, but involved a greater part of the female population than Australia and New Zealand. By 1944, however, and mainly due to faltering production, Australian forces were reduced as the demand in the southwest Pacific meant using three divisions to maintain one on the line.

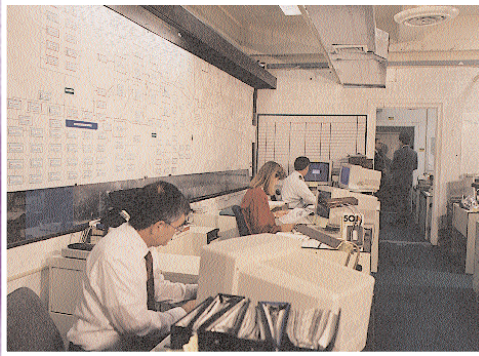
¹⁰ Even including the Free French *Richelieu* in the planned British order of battle the totals of eight capital ships and fifteen carriers were never realistic though on September 2, 1945—as the British gathered forces in readiness for a now-canceled invasion of southern Kyushu—there were five fleet, four light fleet, and seven escort carriers on station. Ironically these plans were prepared in February 1944 just as the high command, in response to the Japanese fleet's move to Singapore as a result of American carrier raids in the western Pacific, was obliged to ask America for carrier support and to release *Richelieu* for service in the Indian Ocean. See the author's "Reinforcing the Eastern Fleet: 1944" in *Warship*, no. 39 (London: Conway Maritime Press, 1986), pp. 191–98.

¹¹ These calculations, based on U.S. Navy reporting for 1942 and 1943, were erroneous, in part because group losses were heavier—20 percent per month—than those in 1945. But air losses by British carriers did meet the calculations: one carrier realized them on one day alone.

¹² The extent of demands with the end of the European war were not realized until spring 1944 when the needs of the British zone of Germany, liberated countries, American forces moving to the homefront for re-deployment to the Pacific, and repatriation of British imperial forces, as well as the normal demands of British forces in northwest Europe, the Mediterranean, and Asia were realized.

¹³ Illustrative of the problems is that postponing the Normandy invasion from May to June 1944 threatened to end all amphibious options in the Bay of Bengal in January–April 1945, the only period outside the monsoon for such operations. Lead-times for European amphibious forces were long indeed, and Overlord's postponement, not to mention continuous supply over the beach due to the failure to secure working ports, would have been enough to end the Indian Ocean options had they not already been discounted.

¹⁴ At a meeting on February 21, 1944, the chiefs decided to resign *en masse* if Churchill insisted on a southeast Asia commitment for political reasons. In effect, they were claiming to be better judges of the national interest than the head of government—an interesting state of affairs given the long-standing tradition of civilian control of the military. Two lessons can be drawn from this little-known episode: the danger of seeing Churchill and the chiefs as one in the same, and more generally the confusion of political, military, and economic issues that blurs distinctions among these aspects of governance so as to be meaningless at this level of command.



Defense Intelligence Agency (Joseph M. Juarez)

National Military Joint
Intelligence Center.

Challenging Joint Military Intelligence

By JAMES R. CLAPPER, JR.

Summary

Military intelligence was shaped over four decades by the Soviet threat, emerging weapons systems, and increasing defense budgets. A sea change began with the demise of the old Soviet empire, the crisis in the Persian Gulf, and growing involvement in U.N. peace operations and humanitarian efforts. The Defense Intelligence Agency (DIA) is adjusting to successor threats, including regional instability, low-intensity conflict, terrorism, counter-narcotics, nuclear proliferation, and chemical and biological weapons—all within a joint environment. DIA must adapt its collection/production/dissemination cycle to a quickened operational pace and fewer resources. With technology now allowing intelligence to be treated as an integrated whole, the restructuring of DIA, and a focus on unified commands, the military intelligence community has gone back to basics while retaining the flexibility needed to underpin support of joint warfighting into the next century.

Few questioned the roles of the military establishment in the early years of our Nation: the Army dominated the land while the Navy concentrated on the sea. Some mix of missions occurred following World War I as the military potential of flight was seriously considered. But during World War II, with the designation of theaters of operation, an interesting phenomenon arose—a commander in chief (CINC) from one service often led thousands of personnel from others.

The impetus for joint command stemming from World War II extended to the creation of the Joint Chiefs of Staff (JCS). The National Security Act of 1947 not only institutionalized JCS but

hastened the formation of a separate Air Force and, eventually, the Department of Defense. At a 1948 meet-

ing in Key West, the chiefs carved out the broad, individual functional areas that remain intact to this day. Jointness came of age with the Goldwater-Nichols Act which requires the Chairman to adjust service functions as appropriate to “achieve maximum effectiveness of the Armed Forces.” This provided a fillip to joint task forces (JTFs)—a hybrid military element with components from two or more services. JTFs were the composite contingency force of choice.

In the 1993 *Report on the Roles, Missions, and Functions of the Armed Forces of the United States*, the Chairman recommended extending JTFs to peacetime. Moreover, JTFs are the predominant means of executing military operations, relying upon service components for specific capabilities. Accordingly, Army and Marine Corps elements comprise joint ground components of JTFs, while Marine and Navy elements make up joint maritime components. Each of the services logically contributes to the joint air and special operations components of JTFs.

**the fundamental elements
of the mission of military
intelligence have not changed**

F-117 Stealth Fighter
attacking Iraqi facility.

Intelligence Keeps Pace

Throughout this evolution, intelligence has pressed to keep pace. The imperative to do so was heightened by the lessons learned from Operations Desert Shield/Desert Storm and subsequent contingency operations. In fact, in the last few years the intelligence community has concentrated on finding more innovative ways of supporting joint warfighting and providing this support more rapidly and efficiently. Lately defense intelligence has also begun to shift attention to transforming peacetime organizations and activities to more closely approximate how the intelligence community would fight during wartime.

The fundamental elements of the mission of military intelligence—to provide unique insight to operating forces, reduce uncertainty for decisionmakers, and project future threat environments for the systems acquisition community—have not changed. What has changed very dramatically in several recent cases is the international military balance. By the late 1980s defense intelligence had evolved over a period of nearly forty years in response to the threat posed by the Soviet Union; the proliferation of multiple, complex weapons systems and intelligence associated with their design and employment; and a corresponding increase in the size of the defense budget. During these four decades a dynamic Soviet threat and U.S. response to it spawned large, capable service component and departmental intelligence organizations focused on intelligence problems related to this threat.

The intelligence community was primarily concerned with adequate capabilities to support the mission of anticipating, monitoring, deterring, and containing Soviet aggression or advantage. Significantly, systematic intelligence interest in other countries or regions, unless somehow tied to Soviet issues, was marginal at best. The former Soviet Union was in many respects a very simple intelligence problem, but it was one that required remarkably sophisticated capabilities to manage. For example, during the height of the Cold War, Strategic Air Command headquarters employed some 1,500 intelligence professionals, bolstered by unmatched civilian depth and expertise within the Defense Intelligence Agency (DIA) to evaluate

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the Soviet nuclear arsenal. Similarly, the Navy needed a robust anti-submarine warfare program to monitor the design and operation of the Soviet submarines capable of surprise attack. And the Army required thousands of intelligence personnel scattered across Europe as a critical force multiplier to help NATO keep tabs on a numerically superior Soviet armored force.

But then came the great collapse. In the span of a few short years, the world witnessed:

- ▼ the demise of communism in the Soviet Union and Eastern Europe
- ▼ the dissolution of the Warsaw Pact
- ▼ the crumbling of the Soviet empire and emergence of newly independent states
- ▼ the end of the Cold War with a diminished military challenge to the West
- ▼ war in the Middle East and subsequent heavy American involvement in U.N.-sponsored peace operations and humanitarian assistance in Iraq, Somalia, and the Balkans.

Realigned and Refocused

Intelligence unquestionably helped win the Cold War by offsetting the imbalance between NATO and the Warsaw Pact. Yet by the time that paradigm no longer applied, and before the West even had a chance to celebrate its victory, defense intelligence moved on to more pressing matters. Primary among them was modifying—in some cases creating from scratch—a structure that would enhance the ability of the military intelligence community to address the challenges of a different, emerging, global military environment.

There are some who claim intelligence never met a threat it did not like. A truer dictum is that intelligence only reluctantly gives up threats it knows best. Today's threats are different from yesterday's and in many respects considerably less predictable. These uncertain threats—regional, low-intensity conflict, terrorism, nuclear proliferation, and chemical and biological weapons—have emerged as defense intelligence's new priorities. Equally important is supporting the expanding involvement of military forces in efforts to alleviate global stress points, whether they involve the use of force or the provision of assistance.

The intelligence community is still responsible for providing the best possible intelligence on regional force capabilities, plans, dispositions, and objectives. It also retains the requirement to understand the conflict environment, whether the mission is containing aggression, keeping the peace, or feeding the starving. In each case, military intelligence must provide information on the means of access to an operational area, plus data on the terrain, climate, and the cultural context in which the Armed Forces will operate.

We should not be deluded, for even with these course adjustments for defense intelligence the task of providing support for force application is neither easier nor simpler than it was during the Cold War. In fact it is probably more difficult. For example, the development of precision-guided "smart" weapons has placed an untold strain on intelligence resources. Operation Desert Storm offered critical lessons regarding intelligence support to sophisticated weapons. Among the most critical was that such systems are voracious consumers of intelligence. For instance, in the past the identification of a specific targeted building sufficed. Today precision delivery capabilities require further identification—down to a particular room in that targeted building. This increase in the level of targeting detail demands exacting geo-positional data, near-real time imagery, and fused all-source intelligence.

Even more, intelligence requirements to support battlefield operations have become simply mind-boggling, from collecting and correlating battlefield activities to developing target packages based on precision analysis, and from assessing battle damage to relaying assessments in near-real time to the operational commander. As a result, intelligence simply must situate itself within the operational cycle rather than outside it. In other words, the intelligence collection, production, and dissemination cycle must be compressed so that it fits within the operational cycle for targeting to support strike and re-strike operations. Also, as force modernization and acquisition programs are focused on fewer systems, comprehensive assessments of projected conflict environments become critically important. In developing these assessments intelligence must forecast both the nature and focus of military conflict in the next

intelligence requirements to support battlefield operations have become simply mind-boggling

twenty years with sufficient precision to define requirements for advanced weapons systems and force structure.

So defense intelligence faces a broad spectrum of global geopolitical changes that requires supporting new and increasingly complex missions. The military intelligence community is at the same time attempting to manage the transition from its Cold War

ways to align peacetime structures and activities to ease the transition to war. Defense intelligence is leveraging advances in automation, communications, and interactive video not only to survive in this new world, but to improve its ability to provide a high-quality product to its customers.

In my *ex-officio* role as Director of Military Intelligence, I have engaged and empowered military intelligence leadership to fight this battle better. These leaders are working together more than ever before to solve the community's most troublesome problems and manage its activities coherently and communally. They have developed a planning approach that permits identification of critical missions and supporting intelligence functions required to meet them, and established a methodology to rationally restructure the community during this period of downsizing so that no essential capabilities are sacrificed along the way.



Loading Intelligence equipment on aircraft.

posture to one appropriate for the new world disorder. This would be a herculean challenge in and of itself. But in addition defense intelligence is embarking on this transition in a period marked by a reduction in resources which far

outstrips the annual increases required to build capabilities in the first place. The fiscal reality for intelligence is simple, yet stark—its budget levels will soon approximate those for 1982.

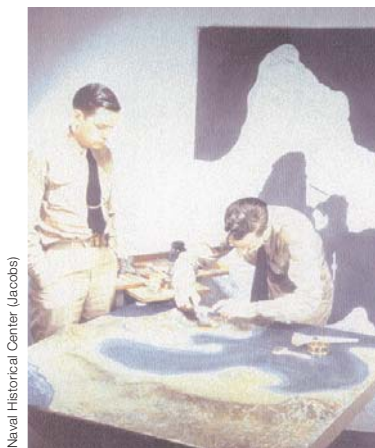
In the Defense Intelligence Agency (DIA), for instance, actions are already under way that will eliminate nearly 1,000 billets by FY97. Throughout the General Defense Intelligence Program (GDIP), for which the DIA Director serves as manager and which funds most military intelligence resources supporting joint forces and defense acquisition, projected cuts will approach 5,000 billets by FY97. Along with these reductions will go many of the capabilities developed in another era to address another problem entirely. The magnitude of programmed cuts—and some advocate even larger reductions—will leave intelligence with little flexibility to devote resources to developing new capabilities to counter future threats.

With the dual challenge of more missions and fewer resources, the military intelligence community views increased jointness as a potential solution. Specifically, the military intelligence leadership is focusing on embedding joint culture in all operations and is continually searching for innovative

The Joint Environment

DIA began this process by institutionalizing the functions of the Pentagon-based, national-level Joint Intelligence Center (JIC) which proved so valuable during the Gulf War. Established in the aftermath of that conflict, the National Military Joint Intelligence Center (NMJIC) is a crisis-oriented, multi-service, multi-agency intelligence clearinghouse and tasking center which forms the heart of timely intelligence support to national-level contingency operations. Assigned analysts and indications and warning personnel monitor world trouble spots and guide formation of intelligence working groups to monitor events more closely as situations intensify. These working groups can be expanded into intelligence task forces. DIA can also activate an Operational Intelligence Crisis Center in the Defense Intelligence Analysis Center (DIAC) at Bolling Air Force Base, a move that allows NMJIC personnel to have rapid access to DIA's extensive analytic expertise.

After the Gulf War the current intelligence functions of all service intelligence organizations were the first elements to be consolidated in NMJIC. Later agencies such as the National Security Agency and Central Intelligence Agency also provided full-time representatives to NMJIC. These elements can be augmented easily and rapidly in



Building relief map of Rabaul, New Britain, circa 1943.



U-2R/TR-1 reconnaissance aircraft.

DOD

mechanisms have been established to share intelligence with crisis centers supporting the United Nations

large-scale crises that demand greater participation by community elements. Depending upon the nature of the crisis, NMJIC can also accommodate intelligence support from other national-level agencies and departments, such as the Federal Bureau of Investigation and Department of State.

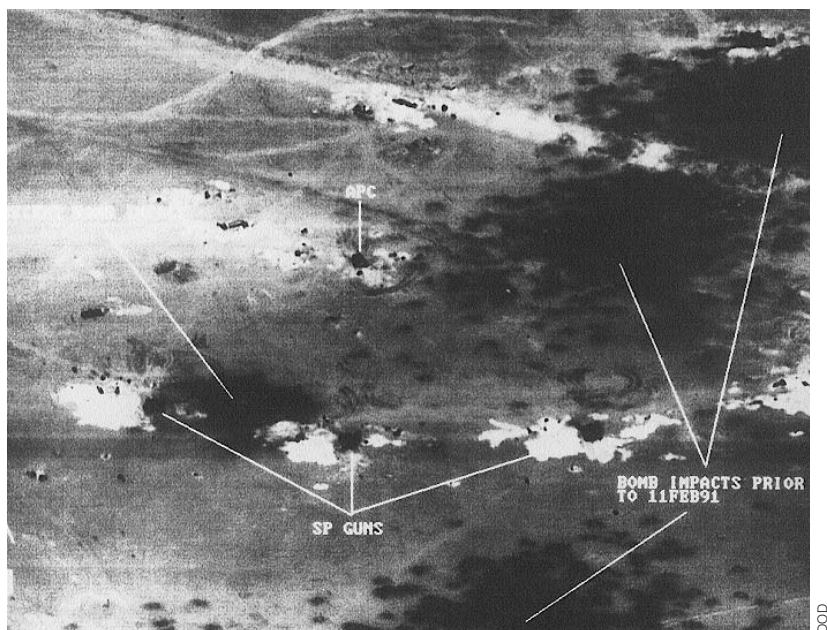
With a staff arrayed both functionally (for example, terrorism or narcotics trafficking) and regionally (on areas such as the Middle East or Africa), NMJIC hosts various intelligence working groups and task forces formed to address contingencies around the world. During actual crises, NMJIC serves as a clearinghouse for all requests for national-level intelligence information. Field elements forward intelligence requirements to NMJIC where they are either satisfied immediately using existing resources or farmed out to other agencies, such as service intelligence organizations, for more detailed study. All responses back to field elements are routed through NMJIC.

Interface mechanisms have also been established that allow NMJIC to share appropriately sanitized intelligence information with crisis centers supporting the United Nations

and countries that have formed coalitions with the United States.

In addition to permanently establishing NMJIC following the Gulf War, DIA spearheaded an effort to consolidate theater intelligence assets into centers at major combatant commands. These JICs have become primary nodes for intelligence support to CINCs. Through them, the analytic community provides detailed intelligence analysis against priority targets. Within them defense intelligence has established a capability for the daily monitoring of events throughout each CINC's area of responsibility. JICs perform similar functions for CINCs as NMJIC does for elements in Washington. In commands with worldwide missions JICs concentrate on tailoring and applying intelligence for local use that is developed primarily at national level. In commands with specific regional responsibilities, JICs possess full-up production capabilities as well as collection assets to develop intelligence concerning their areas of interest. This information is frequently enhanced by intelligence provided from the national level.

Critical to the success of these JICs is the ability to process fused intelligence from



Effects of airstrikes shown in imagery from U-2R/TR-1.

multiple sources for theater battle management, and then transmit it further down the warfighting chain to tactical level. Accordingly, the defense intelligence leadership is promoting uniform standards for military intelligence information and communications systems which link the national, theater, and tactical levels. The foundation of this process is the Joint Worldwide Intelligence Communications System (JWICS) and the Joint Deployable Intelligence Support System (JDISS).

JWICS is a sensitive compartmented information (SCI)-secure, high-capacity, multimedia communications system that offers the military intelligence community a wide range of capabilities, including a secure video and audio service for both video telecasting and teleconferencing. The system also provides conventional network services for collaborative electronic publishing, the electronic distribution of finished intelligence, and tools to accommodate the transfer of reference imagery, maps, and geodetic materials, as well as other high-end graphics products. DIA is using JWICS to broadcast its innovative, daily, national-level, classified intelligence updates. Officially designated the Defense Intelligence Network, the system is commonly called "classified CNN."

JDISS, on the other hand, is a deployable system that, when tied into JWICS, becomes the interface between the military intelligence community's national and theater intelligence centers and subordinate tactical commands. Essentially, it extends the national-level intelligence community's reach down to the lowest tactical level on the battlefield. JDISS offers such applications as word processing, electronic mail, mapping, graphics, electronic publishing, bulk transfer of data, and a capability for direct analyst-to-analyst conversation. JDISS users also have the potential to access other important data bases and applications throughout the system.

To illustrate how quickly advancing technology and operational requirements are pushing us let me cite a real-world JWICS example. Originally, JWICS was planned for introduction early in 1993. To validate the concept, intelligence planners intended to wire the system's components at DIA initially and test them via experimental links to the Navy's intelligence complex in Suitland, Maryland, and Atlantic Command compound in Norfolk, Virginia. But a complication emerged. While preparations were being made to install JWICS at Suitland and Norfolk, the United States launched Operation Southern Watch with the intention of prohibiting offensive Iraqi air operations against the Kurdish minority located south of 32 degrees North latitude. Having committed to this operation without even a fraction of the massive infrastructure available during Desert Storm, the defense intelligence community found itself confronting communications problems similar to those identified repeatedly in lessons learned reports following the Gulf War. Among them were how to disseminate imagery in near-real time, how to share data, and how to communicate effectively with the JTF commander in the region.

The community's solution was to gamble on technology and, instead of shipping JWICS to Suitland and Norfolk, it was sent to Riyadh, Saudi Arabia, where it worked exactly as planned. JWICS facilitated the establishment of a 24-hour electronic window through which NMJIC-based intelligence watch officers could literally reach into the JTF Joint Intelligence Center in Southwest Asia, and vice versa. This JWICS link to U.S. forces during subsequent strike operations in

DIA is currently overseeing the most significant restructuring of Human Resources Intelligence (HUMINT) in DOD history. Under this effort DIA is consolidating the HUMINT assets of all the services with its own to form Defense HUMINT Services (DHS), a new joint field operating activity subordinate to Director, DIA, in his capacity as DOD HUMINT manager. The activity was created last summer by then Deputy Secretary of Defense William J. Perry. DHS is subordinate to the National Military Intelligence Collection Center.

DHS was established to manage HUMINT given the constraints of diminishing resources while more rapidly and efficiently focusing assets on targets worldwide. The transfer of functions and resources is being accomplished in phases and is scheduled to be completed when the activity becomes fully operational in FY97. All the services are represented on a transition team which is focusing on structural and procedural changes in HUMINT during the formation of DHS.

Iraq provided exceptional mission planning support and the best battle damage assessment up to that time. Since then JWICS has become integral to all intelligence support efforts, including those for U.S. and allied forces in places such as the Balkans and Somalia.

This new architecture provides a revolutionary capability for secure communications. For example, some time ago I had discussions with intelligence personnel on *USS George Washington* operating at sea using the JWICS videolink in my Pentagon office. The possibilities of analyst-to-analyst, national-to-tactical-level communications are only beginning to be realized. Technology is providing the capability to treat intelligence as an integrated whole, another fundamental

lesson of Desert Storm. Defense intelligence will soon be able to provide a variety of products to support operating forces at virtually any location for immediate application on the battlefield. The early success of secure communications systems demonstrates the validity of advanced computer technology to establish interactive intelligence connectivity between National Command Authorities, JICs at major warfighting commands, JTFs, and ultimately tactical forces.

Restructuring DIA

The community leadership has been working hard to develop a structure and accompanying processes to meet its new mission. Within DIA the restructuring efforts went back to basics, and in what was the most profound reorganization in the agency's 32-year history, we conceived at the top but built from the bottom a new organization based on the traditional intelligence constructs of collection, production, and infrastructure. Importantly, the new structure was designed to serve as the institutional

base for coherently managing military intelligence. In the new DIA, five of its previous nine directorate-size elements, plus other subordinate offices, merged into three major centers—namely, the National Military Intelligence Collection Center (NMICC), the Production Center (NMIPC), and the Systems Center (NMISC)—each of which performs critical functions.

▼ *Collection Center.* Manages all-source intelligence collection, both acquiring and applying collection resources to satisfy current and future DOD requirements. The center also manages the defense community's entire spectrum of Human Resource Intelligence (HUMINT) programs, and the Measurement and Signature Intelligence program. Finally, NMICC controls the Defense Attaché System which has personnel posted in one hundred countries.

▼ *Production Center.* Produces or manages production of military intelligence for DOD and non-DOD agencies. For instance, the center produces all-source, finished intelligence concerning transnational military threats; regional defense; combat support issues; the weaponry, doctrine, and combat capabilities of foreign militaries; foreign military-related medical advances; and foreign nuclear, chemical, and biological weapons developments. Both the Missile and Space Intelligence Center at Huntsville, Alabama, and the Armed Forces Medical Intelligence Center at Fort Detrick, Maryland, are now part of this center within DIA.

▼ *Systems Center.* Computer/automated data processing (ADP) nerve center which provides information services and support to DIA and other agencies in the national intelligence community. These services include ADP support, communications, engineering and maintenance, information systems security, imagery and photo processing, and publication and dissemination of intelligence reference products.

Military Intelligence Board

Throughout this reorganization I have been aided immensely by the Military Intelligence Board (MIB) which is composed of the service intelligence chiefs; Director for Intelligence (J-2), Joint Staff; Deputy Assistant Secretary of Defense for Intelligence; Director of the Central Imagery Office; Associate Deputy Director for Operations at NSA; and other senior DOD officials. I chair MIB in my capacity as the Director of Military Intelligence (DMI), which is distinct from my role as the Director, DIA.

MIB proved its worth during the Gulf War when it played a critical role in fostering greater cooperation within the military intelligence community. Since that time MIB has met virtually every week and provided a forum for senior community leaders to oversee program development, review integrated programs and budgets, resolve programmatic issues of mutual concern, and deal with substantive intelligence matters.

**intelligence data no longer
bypasses CINCs as it flows
from national level to
service elements**

As this modus operandi matures, we envision empowering the service intelligence chiefs as Deputy Directors of Military Intelligence. In this way, they will acquire recognized responsibility and authority to assist

in the management of military intelligence as an integrated community for their respective warfare areas.

These reorganization efforts, coupled with a rethinking of the way defense intelligence does business, meshes well with the new combat construct for regional contingencies that has emerged recently. At the top of what Pacific Command calls the theater "two-tiered warfighting model" is the unified command which monitors the regional military situation and provides direction as well as strategic and operational focus for forces in the theater. It also maintains combatant command over associated JTFs. Beneath the unified command are service components that provide forces and sustain logistics for the theater, and JTFs which coordinate activities of the combat forces and provide direction to tactical forces.

To reiterate, intelligence data no longer bypass CINCs as it flows from national level to service elements in the field. National-level intelligence activities are centralized in NMJIC where service and intelligence community representatives are consolidated. Data funneled via NMJIC flows in turn through unified command JICs and on to JTFs, which significantly have subordinate to them not individual Army, Navy, Marine Corps, and Air Force components, but land, sea, air, and special operations forces.

Achieving this level of jointness in peacetime has not been without its share of confusion. Likewise, overlaying this structure with a corresponding, complementary template for intelligence support—and then



SR-71.

making it reality by applying appropriate high-technology and providing a solid organizational underpinning—has also presented a challenge. As we learned in restructuring DIA, the concept was simple, but the devil was in the details. But this was clearly a concept whose time had come. The challenges to joint military intelligence today are much different from those of the Cold War years. The community's responses have also been different. In short, we have returned to the basics of intelligence, and in doing so I believe we have fundamentally changed our ways for the better. Most importantly the organizational structures are sufficiently flexible to sustain military intelligence into the next century. To harken back to Baron Rutherford, we in defense intelligence have not only begun to think, we have begun to act as well.

JFQ



Is U.N. Peacekeeping a Growth Industry?

By EUGENE V. ROSTOW



United Nations

The U.N. Security Council in session.

Several recent articles in *JFQ* and other military journals assume that the sudden increase in the number and complexity of U.N. peacekeeping operations will continue indefinitely. Straight line projections are notoriously unreliable as a basis for prediction, however. In this instance, they are particularly unreliable, because the present trend raises serious and difficult problems of law and policy, especially for the permanent members of the U.N. Security Council.

The reasons for this judgment emerge sharply from even a brief review of the evolution of U.N. peacekeeping in the perspective of the policies supposed to govern such activities. The U.N. peacekeeping efforts in which we have lately been involved in Somalia, Bosnia, and Haiti are a sub-set of a much larger class of political and military actions, all of which are in fact intended to keep (or restore) peace.

As a matter of practical politics, the notion that the major powers of the state system at any given period have a special responsibility for keeping the peace was first proclaimed in the Treaty of Vienna which brought the Napoleonic Wars to an end in 1815. The conception of peacekeeping adopted by the Congress of Vienna was simple and clear cut. It remains the essence of the idea of peacekeeping today.

The Treaty of Vienna called upon the leading powers to take three kinds of action: first, to hold regular meetings of the sovereigns or their ministers; second, to consult at those meetings about their common interests; and third, to agree "on measures most salutary for the repose and prosperity of the nations and for the maintenance of the peace of Europe." This program recognized the special importance of the Great Powers because they have military strength but was meticulously based on the political fact that each state was deemed to be sovereign.

Until 1914 the main European powers, sustained in their resolve by the fear of a new Napoleon, followed these prescriptions with remarkable success: they met in Congress from time to time, consulted about threats to the peace, and sometimes agreed on diplomatic or military measures to prevent war or to smother it in negotiations. Save in two instances—the Crimean War and the Franco-Prussian War—the new habits of the Concert of Europe prevailed, and even then concerted Great Power diplomacy helped to keep those wars brief and limited.

For most Americans the Concert of Europe is a dim and unattractive memory. The names of Castlereagh, Metternich, Talleyrand, and Czar Alexander I, the chief delegates to the Congress of Vienna, are hardly household words. At most, those men are recalled as reactionary enemies of all the causes most dear to the romantic liberalism of the early 19th century. Their effort to outlaw the slave trade is perhaps the only exception to that grim verdict.

Yet the achievement of the Congress of Vienna has turned out to be as creative and far-sighted as that of the 55 men who met in Philadelphia in 1787 to write a new constitution for the United States. Between the Congress of Vienna and 1914, the Concert of Europe gave the world a century of general peace which proved hospitable to social progress as it should be defined: the emergence of democracy, end of slavery, acceleration in vindicating the equality of women, development of trade unions and the welfare state, and the flowering of science, learning, and the arts.

The successors to the 19th century European statesmen, a group which now includes

American, Japanese, and Chinese members among others, can claim no such record. After violent exertions in two appalling wars and a prolonged Cold War, they can claim only that they barely managed to prevent the death of world civilization. It remains to be seen whether they can restore the health of the weakened polity which has survived.

In 1914, of course, the Concert of Europe failed to prevent war. One of the strongest considerations in President Wilson's decision to lead the United States into the war in 1917 was the conviction that the Concert of Europe had to be institutionalized and strengthened in order to make it an effective League to Keep the Peace. Wilson came to realize that, unless the United States joined the Western Allies in the war, it would have no voice in the peace, and could not therefore expect to help the Concert of Europe develop into an effective international body capable of keeping the peace. For Wilson, this was America's most vital stake in the outcome of the war.

The League of Nations was created in 1919 as a new Concert of Europe, this time on a world scale. It was in continuous session, had an independent secretariat, and embodied the idealism of the Peace Movement; but its only instruments for action were those of the Concert of Europe—consultation, persuasion, and recommending peacekeeping measures to member states. The United States was not a member of the League, and the Soviet Union was not admitted until 1934. And most important of all, neither the United States nor its West European allies were ready to accept the burdens of peacekeeping in the world of troubles which emerged from the wreckage of World War I.

The history of the two decades between the wars is a chronicle of almost unrelieved human folly. There was a widespread loss of confidence, nerve, and will among the governing classes of all the countries. As disaster

after disaster was brought on by the ineptitude of governments, the forces of evil emerged from their caves, and Russia, Italy, Germany, and then Japan were taken over by regimes of barbarism and aggression which threatened a return to the Dark Ages. Gradually Western countries and the Soviet Union rallied and barely won World War II.

In 1919 the peacemakers had made the reform of the Concert of Europe their first order of business at Versailles; in 1945, in San Francisco, they dealt similarly with what they perceived as the structural weaknesses of the League of Nations. This time, the peacemakers were led by a Wilsonian American government, which had worked with Great Britain throughout the war to prepare the draft Charter of the United Nations. The Charter was in fact adopted even before the war against Japan was quite finished.

The U.N. Charter, going beyond the Covenant of the League of Nations, flatly prohibits the use of force against the territorial integrity or political independence of any state. The Security Council is vested with "primary responsibility" for keeping the peace and endowed with two kinds of power for achieving that goal: the peaceful methods of conciliation, mediation, adjudication, and diplomacy listed in chapter VI of the Charter, and, when diplomacy fails, the novel authority to use military and economic pressure provided for in chapter VII.

So far as the use of armed force is concerned, chapter VII provides two equally legal methods for using military force to carry out the Charter rule against aggression. The Security Council, through the Military Committee and Secretary General, can conduct *enforcement actions* which could range in severity from breaking diplomatic relations to full scale war. The Charter provides detailed procedures for serious military operations. Under article 43, member states can make special agreements with the Security Council to provide the necessary force. Those troops could be called on by the Security Council when needed and would operate under U.N. command. While the founders of the United Nations assumed that enforcement actions by the Security Council would be the normal and perhaps nearly the exclusive way to keep the peace, the elaborate procedures of chapter

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VII have never in fact been used. Despite the passionate hopes attached to the Wilsonian idea, those articles are and will almost surely remain a dead letter. They have been tried in the crucible of experience and found wanting. The great power veto, indispensable to the existence of the organization, makes it impossible for a state to rely with confidence on the United Nations as the guarantor of its security. And quite apart from the veto, the tenacious force of nationalism makes anything like consistent unanimity in the Security Council nearly inconceivable.

The Charter rule against aggression has been enforced since 1945, when enforced at all, by actions of individual or collective self-defense conducted by victims of aggression and their friends without permission of the Security Council. In Korea (1950–54) and the Gulf War (1991–) such campaigns

**peacekeeping forces are
lightly armed troops
for police actions in aid
of diplomacy**

of self-defense have been blessed by the Security Council, a move which was welcome to the victims of aggression and their friends but legally unnecessary. Nonetheless, those votes of approval by the Security Council have been of enormous emotional and political significance in invoking U.N. symbolism, however mythical. The point is of capital importance, because one frequently comes across the statement that the Security Council is the sole source of legitimacy for all peacekeeping operations.

Article 51 provides that nothing in the Charter “shall impair the inherent right of individual or collective self-defense . . . until the Security Council has taken measures necessary to maintain international peace and security.” The reason for this provision of the Charter is obvious. The document’s drafters were acutely aware that the enforcement procedures of the League of Nations had failed. The enforcement articles of chapter VII were designed to remedy the perceived weaknesses of the League Covenant. The San Francisco Conference which produced the Charter in 1945 realized, however, that its bold and innovative enforcement procedures might in turn fail. They therefore underscored the importance of what is called the *inherent* right of states both under customary international

law and the Charter to defend themselves against breaches of the peace until the Security Council has acted effectively to restore the peace. Thus the states would not be powerless to resist aggression if the Security Council could not for any reason undertake to enforce the peace itself.

Neither the Security Council nor International Court of Justice has as yet clearly indicated how long a period the Security Council has under article 51 before the right of self-defense may be required to yield to a Security Council enforcement action. A few people have contended that the right of self-defense is suspended in effect when a complaint is put on the Security Council’s docket. This is an absurdly narrow reading of the language and policy of article 51.¹ Certainly state practice gives no support for such a view. In the long cycle of Arab wars against Israel, for example, it has never been suggested that Israel lost its right of self-defense when the Security Council took cognizance of the conflict and put it on the docket. As the ultimate buckler of sovereignty, the right of self-defense cannot be impaired so lightly, especially if the Security Council is relying on inadequate or ineffectual measures to restore the peace.

The only way the state’s inherent right of self-defense can be forced to yield to a Security Council enforcement action is by a Security Council resolution “deciding” that the action of self-defense has itself become a breach of the peace. Such a resolution would of course be subject to a great power veto.

There is a third category of uses of force considered legal under the Charter, *peacekeeping* actions recommended by the Security Council or indeed by the General Assembly. In the U.N. vocabulary, peacekeeping forces are lightly armed troops for demonstrations or police actions in aid of diplomacy—the deployment of U.N. forces between belligerents to help monitor a cease-fire agreement or demilitarized zone, for example. One U.N. official calls it a “non-coercive instrument of conflict control,”² a definition which accurately characterizes the policy Secretary General Dag Hammerskjöld and the Security Council of his day thought they were applying when they invented it shortly after the Suez Crisis of 1956, and then tried to use it again in the Congo crisis of the early 1960s. Hammerskjöld called

these operations *chapter six-and-a-half* procedures, a way of moving from the entirely peaceful methods of chapter VI to the far different measures of chapter VII.

In Hammarskjöld's view, U.N. peacekeeping operations could be conducted only with the consent of states where they were to take place. The force was to be scrupulously neutral between the parties and use deadly force only to defend itself or perhaps its U.N. mandate.

The Charter makes no express provision for U.N. peacekeeping activities of this kind. But the International Court of Justice has decided that the General Assembly or the Security Council have broad implied authority to organize and use such forces as they may deem "necessary and proper" in order to carry out diplomatic efforts to promote the peaceful settlement of disputes. The International Court of Justice has said with emphasis that such uses of force are not *enforcement actions*, but are legitimate activities of the organization, part of its armory of diplomatic methods for resolving disputes under chapter VI by peaceful means.³

The first two large-scale U.N. peacekeeping exercises took place in the Middle East after the Suez Crisis and in the Congo during the 1960s. Both ended in recrimination and controversy.

The Secretary General at the time, Dag Hammarskjöld, instructed peacekeepers to take no sides in the Congo civil war, save to make sure that Belgian or other non-Congolese forces did not participate. Not unnaturally, it proved difficult to reconcile these goals, and in the end some U.N. peacekeepers used a considerable amount of force to defeat white mercenaries and others who were helping the secessionist government of Katanga province. The Congolese government prevailed, and the civil war ended. But it took an opinion of the International Court of Justice to persuade the French and Soviets to pay their assessed share of the costs for the operation. They had refused to pay because they thought the peacekeeping effort was illegal under the Charter. There is still an active controversy about who ordered the final attack but no controversy about the outcome.

The final days before the Six-Day War of June 1967 reveal how dangerous and unrealistic Hammarskjöld's second rule can be. The U.N. Emergency Force (UNEF) had been established after the Suez War of 1956 to patrol an area between Israeli and Egyptian forces along the Eastern border of the Sinai Desert. As worldwide anxiety focused on the Arab forces being deployed in Sinai positions to attack Israel, Egyptian President Nasser asked U.N. Secretary General U Thant to remove the UNEF troops from parts of the *de facto* Israeli-Egyptian border. In all probability, Nasser expected to be restrained by the strong pressure of the Western powers not to start a war. The Secretary General took the position that if Nasser wanted part of the UNEF forces removed, he would have to remove them all. This was done over the furious protest of President Johnson, and the Six-Day War became inevitable.

The recent crop of peacekeeping operations has blurred the distinction between chapter VI and VII in U.N. practice. If peacekeepers are authorized by the Security Council to use force on a considerable scale, it is no longer possible to pretend that they are present in host states only with their permission and only as neutrals. The Congo episode of 1960–64 dramatizes this dilemma.

Immediately after Belgium liberated the Belgian Congo in 1960 to become the Republic of the Congo, the rich province of Katanga formally seceded with the help of some Belgian officers and European mercenaries claiming recognition as an independent republic. The Security Council, taking jurisdiction at the request of the Secretary General, undertook to help maintain the territorial integrity and political independence of the Republic of the Congo within its original boundaries, assist in maintaining order, secure the withdrawal of foreign troops and mercenaries, and prevent civil war. Clearly Security Council policy in the Congo, Somalia, Haiti, and Bosnia went beyond the neutral posture for peacekeeping forces which had been deemed mandatory at an earlier point. It is hardly self-evident that U.N. forces should be or can be neutral between aggressor and victim. Will the legal advisors of foreign offices acquiesce in so radical a change in the legal distinction between chapter VI and VII? Can the Security Council authorize peace enforcement actions not through the

special procedures foreseen by article 43, but through procedures which have emerged in recent peacekeeping episodes? Is the procedure prescribed by article 43 mandatory? Does it embody a fundamental principle of policy? As a matter of usage, will *peacekeeping* operations of this kind become the equivalent of what have always been regarded as enforcement actions?

The issue will arise shortly if the Security Council utilizes the precedent of its practice in dealing with the crises in Somalia and what once was Yugoslavia as a way of dealing with the urgent problem of *failing states*, that is, states which the Council finds are incapable of meeting their international responsibilities. This is the most striking procedural development and potentially most important substantive development in the recent peacekeeping practice of the United Nations.

The loose and flexible procedures which the Security Council has pursued in establishing and managing peacekeeping operations

why should NATO go through the process required for a Security Council resolution

since the Congo incident thirty years ago raise the question with which we began: the equal legality and legitimacy under the Charter of enforcement actions and actions of collective self-defense in carrying out the Charter rule against aggression. The point is underscored by the willingness of the Council to *delegate* to NATO the military responsibility for carrying out a peace agreement for Bosnia, if one is made.

Under the Charter, members of NATO have the right to use force in the former territories of Yugoslavia to defeat and reverse the consequences there of aggressive acts and other violations of the laws of war committed during the last two years by Serbia and Croatia. The consent of the Security Council would not be required for such an action on the part of NATO.

The permanent members of the Security Council would have to resist any attempt by the Secretary General to establish a rule requiring Security Council authority before NATO undertakes an action of collective self-defense which raises a fundamental question. Such a rule would violate the basic principle of article 51 of the Charter. As Secretary of Defense William Perry has recently made clear, NATO forces in Bosnia would be

directed by NATO arrangements for command and control, not those of the United Nations. That being the case, why should NATO go through the slow, difficult, and uncertain process required for a Security Council resolution of prior approval?

What bearing does the U.N. experience with peacekeeping operations of this kind have on the universal aspiration for an effective system of collective security against aggression? For large-scale military operations like those in Korea, Cuba, Vietnam, or the Persian Gulf, arrangements of collective self-defense offer the only practicable way toward effectiveness in enforcing the Charter rule against aggression. Since the procedures of article 43 are not available for reasons mentioned earlier it behooves the states to give up the quest for a new mechanism, a new bureaucracy, which might prevail where the League of Nations, Security Council, and other institutional devices have failed. In this realm, wisdom comes with the realization that while Woodrow Wilson's insight was correct in viewing the failure of the Concert of Europe to find a diplomatic solution for the crisis which followed the archduke's murder in 1914 as the proximate cause of World War I, his remedy for reforming the Concert was misconceived. Neither the shortcomings of the Concert of Europe nor the United Nations can be cured by a new institution and a new bureaucracy, or by reinforcing the Security Council's power to pass legally binding *decisions*. In its nature, the state system is still a congeries of sovereign states, which can be led only by the achievement of consensus among its leaders. Its basic procedures are still the meetings, consultations, and recommendations of the Concert of Europe, not the commands of a non-existent sovereign. For peacekeeping, the model of the Concert of Europe is far more realistic and relevant than all the well intentioned experiments in building the international machinery of a superstate. **JFQ**

NOTES

¹ Eugene V. Rostow, "Until What? Enforcement Action or Collective Self Defense?," *American Journal of International Law*, vol. 85 (1991), p. 505.

² Shashi Tharoor, "Peace-Keeping Principles, Problems, Prospect," *Naval War College Review*, vol. 47, no. 2 (Spring 1994), pp. 9, 10.

³ "Certain Expenses of the United Nations," International Court of Justice, July 20, 1962, pp. 151, 165-66.

General Nathan Farragut Twining, USAF

(1897–1982)

Chief of Staff of the Air Force
Chairman, Joint Chiefs of Staff

VITA

Born in Monroe, Wisconsin. Graduated from U.S. Military Academy (1918). Attended Infantry School and served as company commander, 29th Infantry (1919–22). Instructor, Air Corps Primary Flying School (1924–30). Pilot and squadron commander (1930–35). Attended Air Corps Tactical School and Command and General Staff School (1935–37). Air Corps technical supervisor (1937–40). Technical Inspection Section, Office Chief of Air Corps, and assistant executive officer to Chief of Staff of the Army Air Force (1940–42). Chief of Staff, Army Air Forces, South Pacific. Commanded 13th Air Force; 15th Air Force, Mediterranean Theater; and 20th Air Force (1942–45). Commanding General, Air Materiel Command (1945–47). Commander in Chief, Alaskan Command (1947–50). Vice Chief of Staff (1950–53) and Chief of Staff of the Air Force (1953–57). Chairman of the Joint Chiefs of Staff (1957–60). Worked for development of aircraft, missiles, and weapons. Advocated Eisenhower's policy of extensive but not exclusive reliance on nuclear weapons. Term as Chairman marked by crises in Lebanon and on Quemoy and Matsu. Played leading role in DOD Reorganization Act of 1958. Died at Lackland Air Force Base.



Courtesy of USAF Art Collection

In 1948 the Nation's first Secretary of Defense, James D. Forrestal, ordered the Joint Chiefs of Staff to take a sabbatical at Key West, Florida, for an intellectual reassessment of roles and missions of the Armed Forces. He hoped for a solution to the increasingly ugly internal struggle for resources. Unfortunately, no such solution came from the meeting. When reduced to the actual meaning of the many words of the document, the mission of the Army was only restated to be the defeat of enemy ground forces; the Navy's was to be control of the seas; and the Air Force was charged with securing and controlling the air. These missions and their service assignments were, of course, precisely the same prior to Key West.

This redefinition of the roles and missions apparently failed to consider, or to strike at, the real core of interservice rivalry. It would seem, from agreements reached, that some fears had been expressed that one service might cannibalize another. But I don't believe that any responsible military chief of service ever actually entertained such an intention except, perhaps, as a "paper exercise." The complexities of modern war would absolutely prohibit a one-service or two-service system.

—From *Neither Liberty Nor Safety: A Hard Look at U.S. Military Policy and Strategy*
by Nathan F. Twining

Portrait of General
Nathan F. Twining by
Robert Brackman.

Letters...

Rewrapping Joint Packages

To the Editor—The British once thought that an adequate presence in the Falkland Islands could be provided by residual marine detachments, the occasional visit of a nuclear submarine or surface combatant, and long-range military overflights. Argentina's invasion caused Whitehall to regret its decision to reduce forward based assets. Some recent articles on the Adaptive Joint Force Package (AJFP) concept ignore the lessons of the Falklands. The article by Admiral P.D. Miller in the inaugural issue of *JFQ* (Summer 93), for instance, minimized the negative implications of this concept without indicating what the terms *presence* and *deterrence* actually mean.

AJFP is not a panacea for doing the same with less. Forward presence means deploying credible assets where they can be best used in a crisis. They serve simply through their existence to deter would-be aggressors. No one has yet determined the point at which *credibility* is stretched to *incredulity*. Some aggressors are only deterred by what they can see. To claim that bombers in Louisiana provide the same level of deterrence as forward deployed carriers and amphibious ready groups with embarked Marines looming on the horizon tests the imagination. Yet the proponents of the AJFP concept continue to argue that this is possible.

Fiscal austerity obviously requires warfighting CINCs to take advantage of all the forces at hand. However, cobbling together disparate companies, squadrons, and detachments as the tip of the American spear is a recipe for disaster. It is worth recalling the problems encountered by joint forces at Koh Tang Island in 1975 and Desert One in 1980.

Other AJFP advocates insist that single-service force packages can be *adapted* by selecting capabilities to meet specific requirements. One CINC may require a carrier while another needs a tailored amphibious group supported by missile-firing ships and submarines. But it is a rare CINC who would accept a less capable deterrent force. The problem is one of definition. What AJFP can replicate the capabilities of carriers and amphibious forces? Can Atlantic Command convince a CINC that AJFP capabilities meet his requirements? Despite similar past experiments we have yet to determine the appropriate joint

force mix that replicates proven capabilities formerly provided by carriers and amphibious forces alone.

The value of AJFP is in cost-saving synergism and the expanded range of capabilities put at a CINC's disposal. Fragmenting capabilities by requiring joint forces to compete for scarce space aboard sea-based assets or substituting less capable assets does not provide the appropriate force or take advantage of the true capabilities of naval forces.

One need only remember the dilemma faced by the Royal Marines in the Falklands to grasp the real importance of forces and equipment designed to operate in consonance. When they wanted to use amphibious assault capabilities on *HMS Hermes*, the British marines found that the decks, normally crowded with helicopters, had been commandeered for a fleet air-to-air defense mission instead of amphibious assault. The Royal Marines were not properly utilized and the Sea Harriers launched from *HMS Hermes* were not overly effective in stopping the Argentinean air force.

AJFP remains a *good* idea. Once we determine what levels of joint force replicate carriers and amphibious forces, it will be a *great* idea. It is dangerous to experiment with the requirements of warfighting CINCs prior to reaching a consensus on what sort of AJFP is an adequate substitute for traditional forces. While AJFPs are a consequence of fiscal constraints, we must avoid being lulled into a false sense of security. It is better to model and simulate AJFP ideals before going to sea. We do not want to find ourselves in a situation similar to that which the British confronted off the Falkland Islands when they needed a carrier and had to make do with something else.

—Maj C.P. Neimeyer, USMC
Plans Division
Headquarters, U.S. Marine Corps

Joint Acculturation

To the Editor—I read Bernard Trainor's article on service culture and the Gulf War (see Out of Joint, *JFQ*, Winter 93–94), and while it is an excellent piece, I'm compelled to offer a few further details on things which he neglected to mention.

While most participants will admit that, as Trainor indicated, not everything associated with jointness went perfectly in Desert Shield/Desert Storm, some things were a cause for pride. The Marines did a splendid job in reaching Kuwait City, assisted by the magnificent performance of the Army's Tiger Brigade. Moreover, the Army

provided vast logistical support to the Marines as well as the other services (the amount of ammunition alone would stagger the average reader of *JFQ*). Members of every service put aside parochial views and did what was best for the Nation and the coalition—and their deeds speak louder than words.

The Goldwater-Nichols Act is not a panacea, but it provided for much better coordination among the services in the Gulf War than in previous conflicts. No member of the Armed Forces should have to pay with his or her blood for the ego of their leaders. I hope and pray that we fix the problems identified in the numerous after-action reports on Desert Shield/Desert Storm. In my opinion true jointness will not occur until leaders put parochialism aside and do what is best for our soldiers, sailors, marines, airmen, and ultimately the Nation.

—LTG C.A.H. Waller, USA (Ret.)

The writer served as Deputy CINCCENT during Desert Shield/Desert Storm.

To the Editor—Bernard Trainor's essay entitled "Jointness, Service Culture, and the Gulf War" (*JFQ*, Winter 93–94) offers a good analysis of jointness in Desert Shield/Desert Storm. However, he makes two assumptions that are incorrect and detract from his thesis.

The first is his discussion of the Joint Forces Air Component Commander (JFACC). Here he attributes to Air Force biases the centralized control of air power and attacks against only targets that planners believed critical to the overall campaign, citing the unhappiness of both the Army and Marines with targeting. The CINC determined targets for the strategic air campaign from JFACC input and reviewed JFACC planning, particularly where no agreement existed among component commanders. For example, he allocated sorties to soften up the Iraqi Republican Guard against the advice of his Air Component Commander. It is important not to interpret dissatisfaction with the decisions of a CINC as a lack of jointness when the issue really reflects joint control of air assets.

Second, Trainor compares the NATO heritage of VII Corps with the greater flexibility of the Marines. He incorrectly attributes the *delay* of VII

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letters and comments. Write or
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Education

THE ABCs OF JPME

There is a lot of misunderstanding about joint education. Part of it involves confusion over five interrelated terms, namely, *joint matters*, *Joint Professional Military Education* (JPME), the *Program of Joint Education* (PJE), the *Process for Accreditation of Joint Education* (PAJE), and *Professional Military Education* (PME). Another area of misunderstanding concerns educational requirements for promotion or designation as a Joint Specialty Officer (JSO). A third area centers on the responsibilities of the Chairman of the Joint Chiefs of Staff (CJCS) for education as opposed to those of the service chiefs. The following is an attempt to clarify these areas of misunderstanding.

The Terminology

The terms mentioned above—namely, joint matters, JPME, PJE, PAJE, and PME—are defined in Chairman's Memorandum (CM) 1618-93, "Military Education Policy Document" (MEPD), which was issued on March 23, 1993. Together with the services, defense agencies, and CINC's, CJCS used the law and the intent of Congress to define these terms.

Joint matters relate to the integrated employment of active and Reserve component land, sea, air, space, and special operations forces, national security strategy, national military strategy, strategic and contingency planning, command of combat operations under unified commands, and joint force development. The term *joint matters* is fundamental because of the emphasis put on it by the Goldwater-Nichols DOD Reorganization Act of 1986. Title 10, chapter 38, of the act ("Joint Officer Management") makes several specific references to joint matters. It is important because an individual must be educationally qualified in joint matters to become a Joint Specialty Officer (JSO).

Joint Professional Military Education is focused on the integrated employment of land, sea, air, space, and special operations forces. It refers to PME taught in a joint environment, by a joint faculty, to a joint student body, and from a joint perspective. Normally when the term *joint* is used with PME it refers to equal representation from all services. The three JPME institutions are constituent colleges of the National Defense University (NDU): the National War College (NWC), the Industrial College of the Armed Forces (ICAF), and the Armed Forces Staff College (AFSC). These colleges are supervised by CJCS through the President, NDU, and are fully joint in mission and orientation. A joint college, school, or course is used by two or more services and has a joint faculty. Both the Joint Military Intelligence College and the Defense Systems Management College are examples of joint colleges, but they are not JPME institutions. JPME colleges teach joint matters as part of their overall curricula and approach PME from a joint as opposed to a service perspective. Only JPME institutions offer phase II of the Program for Joint Education (PJE) because of the congressionally mandated requirement regarding the mix of students and faculty and the joint focus of their curricula which develops the joint attitudes and values required in phase II.

The *Program for Joint Education* prescribes the joint curricula, student-faculty mixes and ratios, seminar service mixes, standards, and learning objectives for all PME at both intermediate and senior levels designed to qualify officers for JSO designation. The NWC and ICAF curricula encompass both phases of PJE. Other institutions as approved by CJCS conduct PJE phase I and AFSC conducts PJE phase II. Officers must complete both phases of PJE to meet the educational requirements for JSO qualification. Phase I is incorporated into curricula both at intermediate and senior service colleges and in other appropriate educational programs which meet PJE criteria and are accredited by CJCS. Phase II complements phase I,

Corps to meticulous planning and deliberate synchronization required by NATO procedures. The rapid advance into Kuwait took advantage of the Marines' superior offensive capability. Further out on the arc, VII Corps had to travel a greater distance and wait for support units to catch up. The logistical problems are documented, including the limited ability of support units to operate at night. In retrospect any operation can be improved, but in this instance it is incorrect to fault the inflexibility of NATO procedures or lack of jointness.

—Gen James P. McCarthy, USAF (Ret.)
Olin Professor of National Security
Department of Political Science
U.S. Air Force Academy

To the Editor—Both "Jointness, Service Culture, and the Gulf War" by Bernard Trainor and "The Single Manager for Air in Vietnam" by Willard Webb (*JFQ*, Winter 93-94) highlight lessons learned—and relearned—on managing air assets, from World War II to Vietnam and the Gulf War. While acting as Battle Group O-5 JFACC representative in Dhahran during the final days of Desert Storm, I helped establish the first JFACC structure on *USS Lincoln* and participated in the JFACC doctrine working group. The perspectives provided by both Trainor and Webb would have been valuable in my daily interaction with the other services. I applaud *JFQ* for making this information and analysis on joint operations available.

—CAPT C.R. Rondstvedt, USN
Commanding Officer
Service Schools Command

To the Editor—I'm not surprised that some readers have quibbled over my essay on jointness and service culture (*JFQ*, Winter 93-94). It is a complex issue that defies digested treatment. The thrust of my piece was not that jointness failed in the Gulf, but rather that service culture was a driving influence. The lesson is that culture should not be suppressed or jointness abandoned, rather that jointness must harness the vitality of service culture.

I would suggest that critics suspend final judgment until they read my forthcoming book, *The Generals' War*, when it is published later this year. The points contained in my essay are fully addressed there and evidence supporting my thesis will, I trust, convince objective readers.

—LtGen Bernard Trainor, USMC (Ret.)
Director, National Security Program
John F. Kennedy School of
Government
Harvard University

is taught at AFSC at the intermediate and senior levels, and is integrated, along with phase I, into both the NWC and ICAF curricula. In actuality PJE can be thought of as that part of the overall curriculum which covers the specific joint matters mentioned above.

The *Program for Accreditation of Joint Education* is a CJCS-approved process to assess the conduct of PJE. Though the Military Education Division (J-7), Joint Staff, is thoroughly involved in administering PAJE, it is not a J-7 process. PAJE teams gather data and make recommendations to CJCS who appoints PAJE team members based on nominations received from the services and the Office of the Secretary of Defense (OSD). In addition, OSD plays a visible and continuous role in PAJE, from participating in visits to reviewing recommendations to CJCS. PAJE is designed to approximate the civilian education accreditation process. It begins with an extensive self-study by the institution under evaluation and then involves an on-site review by PAJE team members which is followed by a recurring cycle of continuous improvement. The process includes an independent advisor from the civilian sector who is included to ensure that a non-DOD opinion is considered in the overall recommendation. Additionally, all PAJE team members are given specific accreditation training prior to participation. Recommendations to CJCS either for or against accreditation as a phase I or phase II program come from a group including the independent advisor, Director of the Joint Staff, Deputy Director of the Joint Staff for Military Education, and a senior OSD official.

Professional Military Education is related to all of the above. PME provides individuals with skills, knowledge, understanding, and appreciation that enable them to make sound decisions in progressively more demanding command and staff positions within the national security environment. PME has as its primary theme the employment of combat forces, with strategy being increasingly emphasized at the intermediate, senior, and general/flag officer levels.

It considers the military, political, economic, social, and psychological dimensions of strategy with an emphasis on the planning and conduct of war, service organization, joint and combined operations, force employment and deployment concepts, and military leadership.

For simplicity, PME can be thought of as having two components: joint PME (JPME) and service PME. JPME, as previously discussed, has a joint focus in a joint environment while service PME has a service focus and is taught in a service environment. JPME and service PME must each include a component in their curriculum called the PJE. As part of that PJE there are specific goals for the composition of faculty and students and, most importantly, teaching joint matters (as defined above and verified by the PAJE).

Joint Education and Promotion

The second area of misunderstanding is the joint education requirement for promotion or designation as a JSO. These are personnel issues, not educational issues. Again, Goldwater-Nichols directed establishment of the joint officer specialty and specific requirements for JSOs. One requirement, mentioned earlier, is completion of PJE. Meeting the educational requirement, combined with a joint duty assignment and being nominated, leads to board selection for JSO designation. There are other paths to JSO designation, yet this is the most common and is preferred by Congress. While completing PJE phases I and II are key steps in the process of becoming a JSO, both the joint duty assignment and the nomination procedure are of equal importance. But simply completing both phases of the PJE does not make one qualified for a joint duty assignment or JSO nomination.

Specific rules established in the Goldwater Nichols Act govern assignment and promotion of officers with a joint specialty. The rules require that officers who either presently or previously served on the

Joint Staff as well as those who are JSOs must be promoted at a rate no less than that for officers who presently or previously were on service staffs. Officers who are not JSOs but who either are serving now or have served in joint duty assignments other than the Joint Staff must be promoted at a rate no less than service averages. Thus, with the exception of needing joint education to become a JSO, joint education does little to determine promotion. Additionally, nearly half of all joint duty assignments do not have to be filled by officers with a joint education or who intend being nominated for JSO designation. Furthermore, over 80 percent of the remaining joint duty assignments can be filled by JSO nominees. In sum, less than 11 percent of joint duty assignments must be filled by fully qualified JSOs. If one concludes that there is a better chance of getting promoted due to *jointness*, it is joint duty assignments (especially those on the Joint Staff) and not joint educational programs which are at cause. Having phases I and II can help get a joint duty assignment, but without JSO designation or assignment to the Joint Staff promotion rates are the same as service averages. Many select, competitive service positions (such as command) have higher promotion rates than those for joint positions.

The Role of CJCS

The third area of misunderstanding concerns the educational responsibilities of CJCS as opposed to those of the services. Here again the key sources are the Goldwater-Nichols Act, the Skelton House panel report, and MEPD. Title 10, National Defense Authorization Act ("Doctrine, Training, and Education"), lists the responsibilities of CJCS as developing doctrine for the joint employment of the Armed Forces, formulating policies and the joint training of the Armed Forces, and formulating policies for coordinating the military education and training of members of the Armed Forces.

Publishing MEPD fulfills these responsibilities under Title 10 with

respect to *formulating policies*. One of the most important elements of MEPD is the military framework chart outlining education from pre-commissioning through general/flag officer. The Skelton panel report tasked CJCS to review and revise curricula at NDU colleges and joint matters (PJE) at service colleges. Also, CJCS was tasked to establish criteria and standards for PJE phases I and II and to determine through PAJE which programs were accredited for PJE credit (that is, educationally qualifying for JSO designation).

The Chairman's responsibilities do not overlap with service responsibilities. The Chairman is not responsible for developing or accrediting the service portion of PME. Service-unique PME continues to be a responsibility of the service secretaries and chiefs, and extends to issues ranging from curricular design to selection and tenure of commandants. This distinction is important when discussing PJE, PAJE, and MEPD. The Chairman is only one user of the graduates from the PME institutions administered by the services.

Additionally, there are several types of military education other than intermediate (command and staff) and senior (war) colleges, including other educational and technical institutions, enlisted PME courses, branch and specialty schools, and service academies, ROTC, and OCS programs. Technically, CJCS has responsibility for coordinating the policies affecting these educational areas, but past chairmen and the current CJCS have left close oversight to the parent services. However, MEPD addresses these areas, and contact between the Joint Staff and these institutions is ongoing.

In attempting to clarify the common misunderstanding about joint education it has not been possible to offer an exhaustive treatment of the subject. Many other issues, such as the Joint Duty Assignment List (JDAL), joint credit for service in Operations Desert Shield/Desert Storm, waivers, and Critical Occupational Specialties, also affect officers.

Perhaps discussing JPME terminology will open the way. Further information may be found in the Goldwater-Nichols Act, House panel report, or MEPD. Questions on JPME should be directed to military personnel offices.

—Contributed by

Lt Col David E. Muhleman, USAF

Military Education Division (J-7)

Joint Staff

JFQ

INSTITUTE FOR JOINT WARFARE ANALYSIS

The Naval Postgraduate School (NPS) in Monterey, California, is developing a program in Joint Warfare Analysis. Its main thrust is to introduce joint warfare into academic courses in order to graduate military and civilian students who are familiar with joint matters. In support of this effort NPS has established the Institute for Joint Warfare Analysis to serve as a focal point for faculty and student research. Each student is required to complete a research thesis to receive the Master's Degree at NPS, and the institute will direct research in the area of joint and combined warfare.

To facilitate research certain focus issues are being developed. These issues cross not only service lines, but also the boundaries of academic disciplines. For instance, a campus-wide group has been studying theater ballistic missile defense which fostered theses in the fields of operations research, combat systems, joint C⁴I, and space operations. Proposed focus issues for future study include information warfare, joint logistics, offensive operations, and expeditionary warfare.

In addition to research, the institute will assist in course development and the publication of joint material as well as serve as a center for visiting scholars working in the joint arena. For more information concerning this program, contact the Dean of Instruction, Richard Elster, at (408) 656-2391, or the Director of the Institute, CAPT George Conner, USN, at (408) 656-3306.

JFQ

POSTGRADUATE INTELLIGENCE PROGRAM

Starting this autumn the Joint Military Intelligence College (JMJC) will offer a Postgraduate Intelligence Program and Master of Science of Strategic Intelligence Program on a structured part-time basis. JMJC is an accredited institution located on Bolling Air Force Base in Washington.

The curriculum will include courses in intelligence and national security policy, intelligence and strategy, intelligence analysis, intelligence organization and resource management, intelligence collection, the international environment, and electives. Students can complete the Master's degree in two years. Classes include two three-hour sessions each Saturday for ten weeks per academic term, four terms each year. Course work can be completed in seven consecutive quarters with an eighth quarter dedicated to completing the thesis.

Admissions are competitive; the tentative deadline for application packages is July 1, 1994. For more information, please contact the Admissions Officer, LT Thomas Van Wagner, USN, at (202) 373-3299.

JFQ

MILITARY HISTORY SYMPOSIUM

The U.S. Air Force Academy will hold the 16th Military History Symposium, "Tooling for War: Military Transformation in the Industrial Age," on September 21-23, 1994. For more details contact Major John T. Farquhar, USAF, at HQ USAFA/DFH, 2354 Fairchild Drive (Suite 6F37), U.S. Air Force Academy, Colorado 80840-6246; or call: (719) 472-3230/FAX (719) 472-2970.

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Documentation

JOINT OFFICER MANAGEMENT

The following tables were included in the DOD Joint Officer Management Annual Report for FY93 which was published as appendix E ("Goldwater-Nichols Act Implementation Report") to the *Report of the Secretary of Defense to the President and Congress* (January 1994).

Summary of Joint Specialty Officer (JSO) and Joint Specialty Officer Nominee Designations for FY93

Category	Army	Navy	Air Force	Marine Corps	Total
Number of officers designated as JSOs*	234	33 *	0	0	267
Number of officers designated as JSO nominees	388	207	703	0	1,298
Number of JSO nominees designated under Critical Occupational Specialty provisions	309	138	387	0	834

* A total of 108 Navy officers designated as JSOs on October 21, 1993 will be reported in FY94.

Critical Occupational Specialties (COS)

Army	Navy	Air Force	Marine Corps
Infantry	Surface	Pilot	Infantry
Armor	Submariner	Navigator	Tanks/Amphibious Armored Vehicle
Artillery	Aviation	Air Weapons Director*	Artillery*
Air Defense Artillery	SEALS	Missile Operations	Air Control/Air Support/Antiair*
Aviation	Special Operations	Space Operations	Aviation
Special Operations		Operations Management	Engineers
Combat Engineers			

* Specialties with a severe shortage of officers.

Summary of Officers on Active Duty with a Critical Occupational Specialty (COS) as of September 30, 1993

Category	Army	Navy	Air Force	Marine Corps	Total
COS officers who have completed the Program for Joint Education (PJE)	1,542	1,196	1,626	490	4,854
COS officers designated as JSOs	1,537	1,220	1,269	574	4,600
COS officers designated as JSO nominees	1,481	1,337	2,122	344	5,284
COS officers designated as JSO nominees who have not completed PJE	1,071	1,042	1,427	199	3,739
COS JSO nominees currently serving in a Joint Duty Assignment (JDA)	686	645	925	135	2,391
COS JSO nominees who completed a JDA and are currently attending PJE	3	1	10	1	15

Average Length of Tours of Duty in Joint Duty Assignments (JDAs) for FY93 (in months)

	Joint Staff	Other Joint	Joint Total
General/Flag Officers			
Army	26.7	27.6	27.3
Navy	20.3	27.1	26.0
Air Force	24.1	29.6	28.5
Marine Corps	24.9	20.2	22.2
All services	24.5	27.7	26.9
Field Grade Officers			
Army	36.3	38.4	38.1
Navy	34.6	38.9	38.3
Air Force	37.1	40.0	39.7
Marine Corps	37.8	38.7	38.6
All services	36.3	39.2	38.9

Documentation—continued

Joint Duty Position Distribution by Service as of September 30, 1993

	Joint Staff	Other Joint Duty	Total Joint Duty	Total JDAs %	Total Officers % *
Army	274	2,866	3,140	34.5 %	30.3 %
Navy	221	1,723	1,944	21.4 %	26.0 %
Air Force	282	3,204	3,486	38.3 %	37.8 %
Marine Corps	64	461	525	5.8 %	5.9 %
All services	841	8,254	9,095	100 %	100 %

* Total officers O3 through O10.

Critical Positions Summary as of September 30, 1993

Category	Army	Navy	Air Force	Marine Corps	All services
Total critical positions	387	188	364	61	1,000
Number of vacant positions	63	19	85	7	174
Number of critical positions filled by JSOs (percent filled)	277 (87 %)	138 (82 %)	239 (86 %)	38 (75 %)	692 (84 %)
Number of critical positions not filled by JSOs	43	30	38	16	127
Percent critical positions filled by JSOs (since January 1, 1989)	85 %	82 %	86 %	70 %	84 %

Program for Joint Education (PJE) Phase II Summary (FY93)

Category	Army	Navy	Air Force	Marine Corps	All services
Total critical positions	387	188	364	61	1,000
Students graduating from Armed Forces Staff College in FY93	292	169	333	47	841
Students who had not completed resident PME (percent of total)	0 (0 %)	10 (5.9 %)	54 (16.2 %)	15 (32 %)	79 (9 %)*
Students who had completed nonresident PME (percent of total)	0 (0 %)	9 (5.4 %)	54 (16.2 %)	14 (29.8 %)	77 (9.2 %)
Students who had not completed nonresident PME (percent of total)	0 (0 %)	1 (0.6 %)	0 (0 %)	1 (2.1 %)	2 (0.1 %)

* Reasons for not completing resident Professional Military Education (PME) prior to attending phase II (with number of officers): completed phase I by correspondence/seminar (60), completed phase I equivalent program (17), and career path did not allow attendance at a resident PME program (2).

JFQ

The Joint Force Quarterly ESSAY CONTEST ON

Revolutions in Military Affairs

JFQ announces an annual essay contest cosponsored by the Office of the Secretary of Defense (Net Assessment) and the National Defense University Foundation to encourage innovative thinking on Revolutions in Military Affairs and how the Armed Forces can best prepare to remain dominant as the nature of warfare changes. All essays will be considered for publication in JFQ.

The contest will be open to both military officers and civilians from this country as well as abroad. Cash prizes of \$2,000, \$1,000, and \$500 will be awarded to the three top entrants. In addition, a prize of \$500 will be awarded for the best essay submitted by either an officer or officer candidate in the rank of major/lieutenant commander or below (and equivalent grades). All winners will also receive a selection of books dealing with innovation.

Look for entry rules and other details in the next issue of JFQ (Summer 94).

JFQuarterly Survey of Joint Literature

BOOKS

- Douglas Menarchik. *Powerlift—Getting to Desert Storm: Strategic Transportation and Strategy in the New World Order*. Westport, Conn.: Praeger Publishers, 1993. 291 pp. \$49.95. [ISBN 0-275-94642-8]
- Bruce Porter. *War and the Rise of the State: The Military Foundation of Modern Politics*. New York: Free Press, 1994. 380 pp. \$24.95. [ISBN 0-02-925095-1]
- Donald M. Snow and Dennis M. Drew. *From Lexington to Desert Storm: War and Politics in the American Experience*. Modern war studies. Armonk, New York: M.E. Sharpe, 1994. 384 pp. \$50.00. [ISBN 1-56324-251-6]
- David F. Trask. *The AEF and Coalition Warmaking, 1917-1918*. Lawrence: University Press of Kansas, 1993. 235 pp. \$29.95. [ISBN 0-7006-0619-X]

MONOGRAPHS

- Frank J. Cook III et al. *The Defense Department's Role in Humanitarian and Disaster Relief*. National Security Program policy analysis paper 93-02. Cambridge: John F. Kennedy School of Government, Harvard University, 1993. 31 pp.
- Patrick M. Cronin and S.J. Flores, editors. *Standing Up Coalitions*. Conference proceedings. Washington: Institute for National Strategic Studies, National Defense University, 1994. 23 pp.
- William A. Stofft and Gary L. Guertner. *Ethnic Conflict: Implications for the Army of the Future*. Strategic Studies Institute report. Carlisle Barracks, Pa.: U.S. Army War College, 1994. 19 pp.

JFQ lists recent selected titles on joint and combined operations, coalition warfare, military history, and related topics of interest to its readers. Publishers are asked to forward books and publications directly to the attention of the Managing Editor at the address shown in the masthead on page 3.

ARTICLES

- James H. Baker, "Policy Challenges of U.N. Peace Operations," *Parameters*, vol. 4, no. 1 (Spring 1994), pp. 13-26.
- Eliot A. Cohen, "The Mystique of U.S. Air Power," *Foreign Affairs*, vol. 73, no. 1 (January/February 1994), pp. 109-24.
- Karl Farris, "U.N. Peacekeeping in Cambodia: On Balance, A Success," *Parameters*, vol. 24, no. 1 (Spring 1994), pp. 38-50.
- Charles Horner, "Offensive Air Operations: Lessons for the Future," *The RUSI Journal*, vol. 138, no. 6 (December 1993), pp. 19-24.
- George A. Joulwan, "Operations Other Than War: A CINC's Perspective," *Military Review*, vol. 74, no. 2 (February 1994), pp. 5-10.
- Richard H. Kohn, "Out of Control: The Crisis in Military-Civilian Relations," *The National Interest*, no. 35 (Spring 1994), pp. 3-17.
- Richard B.H. Lewis, "JFACC Problems Associated with Battlefield Preparation in Desert Storm," *Airpower Journal*, vol. 8, no. 1 (Spring 1994), pp. 4-21.
- Allan L. Mink, "JTF Planning Cell: Initial Response to the Yugoslavia Crisis," *Military Review*, vol. 74, no. 3 (March 1994), pp. 68-70.
- Justin B. Orabona, "Is There Equality in Jointness?," *Marine Corps Gazette*, vol. 78, no. 2 (February 1994), p. 28.
- Leonard P. Picotte, "Fighting Joint," *U.S. Naval Institute Proceedings*, vol. 120, no. 1 (January 1994), pp. 41-43.
- Michael C. Pugh, "Multinational Naval Cooperation," *U.S. Naval Institute Proceedings*, vol. 120, no. 3 (March 1994), pp. 72-74.
- C.R. Rondestvedt, "Putting the JFAAC to the Test," *U.S. Naval Institute Proceedings*, vol. 120, no. 1 (January 1994), pp. 60-62. **JFQ**

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CHINA'S MILITARY CLASSICS

A Review Essay by
ARTHUR WALDRON

The difference between Western and Chinese ways of war, if there is one, will probably be found in differing emphases on the material as opposed to the mental aspects of conflict. Western military history is an account of ever larger armies and technological breakthroughs. The Chinese tradition, by contrast, with technology often changing very little over long periods of time, stresses strategy and psychological advantage as keys to success. Hence the verdicts of their theorists: for Clausewitz war is an act of force; for Sun Tzu—as will be seen in some of the translations—war is above all the art of deception.

This difference has more than academic importance. The Chinese approach to warfare has a certain attractiveness today as Western warfare seems to be reaching its limits, chiefly since key technology (that is, nuclear weaponry) makes the sort of total war which Clausewitz contemplated increasingly unthinkable. Those nations that could theoretically destroy the world realize that even, or perhaps particularly, such massive force is of little practical use in achieving the ends of policy. So strategic and psychological acumen, traditionally a Chinese forte, look more and more relevant.

These are not novel ideas: indeed some version of them has been part of Western military discourse since at least the period following World War I when the search for a way around the Western Front led thinkers like Liddell Hart to recognize the affinity between the revived Western interest in the indirect approach and the concepts of Sun Tzu

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Three Kingdoms: A Historical Novel

attributed to Luo Guanzhong.

Translated and with notes by Moss Roberts
Berkeley: University of California Press;
Beijing: Foreign Languages Press, 1991.
1,096 pp. \$100.00.
[ISBN 0-520-06821-1]

The Book of Stratagems: Tactics for Triumph and Survival

by Harro Von Senger

Edited and translated by Myron B. Gubitz
New York: Viking, 1991.
397 pp. \$24.95.
[ISBN 0-670-83962-0]

The Seven Military Classics of Ancient China

Translation and commentary by

Ralph D. Sawyer with Mei-Chün Sawyer
Boulder: Westview Press, 1993.
568 pp. \$29.95.
[ISBN 0-8133-1228-0]

Sun Tzu: The New Translation

by J.H. Huang

New York: William Morrow, 1993.
288 pp. \$10.00.
[ISBN 0-688-12400-3]

Sun Tzu: The Art of Warfare

Translated and with an introduction
and commentary by T. Roger Ames

New York: Ballantine Books, 1993.
321 pp. \$25.00.
[ISBN 0-345-36239-X]

Sun Tzu: Art of War

Translated by Ralph D. Sawyer
in collaboration with
Mei-chün Lee Sawyer

Boulder: Westview Press, 1994.
375 pp. \$9.95.
[ISBN 0-8133-1951-X]

and other Chinese strategists. But it was impossible until recently for anyone but a China specialist to go much further. The reason was that for even the most serious and motivated specialist the necessary sources simply did not exist. English-language studies of Chinese warfare were sketchy and highly technical. The major text, Sun Tzu's *Art of War*, was available in the 1910 translation by Lionel Giles or the 1963 version by Samuel B. Griffith. And good

though the two translations were, they did not provide enough.

That situation has now changed dramatically. The last few years have seen a flood of good books on Chinese warfare. Within months of each other three excellent translations of Sun Tzu have appeared, and over the last several years new versions of other key texts on war have been published as well as a magnificent translation of *Three Kingdoms*, China's greatest epic on politics and conflict. At last the rich tradition of Chinese thought about warfare is becoming accessible to the nonspecialist.

The best point of departure for examining why the Chinese understanding of war differs in some fundamental respects to that of the West is probably the *San-Kuo yen-i*, an episodic novel of great length and complexity that is available under the title *Three Kingdoms* in a fine translation by Moss Roberts of New York University. Composed in the 14th century, yet based upon texts and traditions a millennium older, it is the story of a dividing China at the end of the 3rd century A.D. as the Han dynasty neared its end and war raged over whether to save or replace it. Generations of Chinese have come to know the characters in the *Three Kingdoms* just as well as Westerners once knew biblical stories or some know today's sitcoms. There is Ts'ao Ts'ao, the clever and amoral courtier scheming against his own sovereign, Liu Pei, the loyalist who perishes in what he knows is a futile struggle, and most importantly, Chu-ko Liang, the brilliant strategist who gives up a reclusive life of study and contemplation of nature to serve the dynasty.

Portions of Roberts's translation appeared in his 1976 publication of an abridged version of the novel (which is still a manageable introduction though it lacks the sweep and extensive notes of the 1991 edition). While the story is absorbing and full of social and military drama, the conflict described differs in many ways from the sort of war familiar in the West. There are warriors to be sure, but less time is spent on their clashes than in comparable western works such the *Iliad*. We remember the chief characters not so

much for feats of arms as for their moral and intellectual qualities.

Chu-ko Liang is perhaps the best example, for of his character there is no doubt. Although he has turned away from the world to seek peace as a simple farmer, he remains thoroughly loyal to the legitimate Han ruling house, and when asked reemerges to serve it. Of what does his service consist? Above all, his analysis of strategy. Liu Pei, a loyalist leader, goes repeatedly to Chu-ko's hermitage. When finally admitted he finds that Chu-ko Liang is totally familiar with the dynasty's situation and pulls out a map to sketch an optimum counter-strategy. Joining the loyalists Chu-ko serves with great personal bravery, dying on campaign. But it was his ability to get at the heart of strategic questions that brought the Han loyalists to him and that has kept his fame bright among Chinese ever since.

Is there a Western equivalent to Chu-ko Liang? To Clausewitz, Napoleon was the "god of war," but Napoleon never offered a systematic appraisal of the strategic situation as comprehensive as Chu-ko Liang did for the tottering Han dynasty. Before recommending an action Chu-ko Liang carefully analyzed its potential impact on relations among contending states, and it was this insight above all that led to his success. By contrast Napoleon won through a combination of numerical superiority and tactical brilliance, levying one army after another while gradually beggaring France, and moving with speed and cleverness to hit hard, but nevertheless with remarkably little attention to a comprehensive strategy—a weakness he shared with a host of Western military heroes.

This stress on stratagems in one culture and on material and operational strengths in the other is arguably a basic difference between Chinese and Western warfare. The very term *strategy* is derived from the Greek *strategia* meaning generalship, and thus conveys the notion of command. Equivalent words in Chinese—*chi*, *ts'e*, *mou*, and others commonly rendered as stratagem—have

no such operational derivation: they refer directly to plans, a fact which underlines the stress, even very early in China, on thought over action. Several recent publications make this point explicitly, among them Carl-Alrecht Seyschab's "The Thirty-six Stratagems: Orthodoxy against Heterodoxy" in *East Asian Civilizations* and Harro Von Senger's *The Book of Stratagems: Tactics for Triumph and Survival*. These works translate and explicate a recent Chinese text on a traditional subject, the "Thirty-six Stratagems," a collection of phrases which add up to only 138 characters encapsulating various approaches to conflict—such as "besiege Wei to rescue Zhao" or "lure the tiger down from the mountain"—that fascinate some Westerners while others dismiss them as "strategy by fortune cookie." Von Senger supplies either the story from which each phrase originated or a story which embodies the sense of each in a volume which is both interesting and culturally informative.

The making of strategy has been esteemed since ancient times in China above other military virtues, including ability to fight or develop new or improved weapons. Western history is full of warriors renowned for bravery and technologies noted for innovation, from Greek fire to precision guided munitions. But how many stratagems are remembered and celebrated? There are examples such as Cannae or Inchon, but they are exceptions. In the West battles have been won by the side that pushed harder. In China, by contrast, one finds fewer pitched battles and much more staked on the working of strategy.

The reason for this contrast is not an arbitrary cultural difference; the most distinct factor in the traditional Chinese way of thinking about war was the sheer scale of the battlefield. More than two thousand years ago the Chinese were not contending for local power (which may have implied control of a state the size of France), but for control of "all under heaven"—*t'ien-hsia*, which even in those days was probably more than a million square miles of territory. This area was too large to

be conquered by coercion alone, then or now. So from the beginning Chinese military thinkers had to ponder problems on a scale that Westerners have confronted only quite recently. China was and is too big to conquer militarily or rule by direct coercion. The technique of controlling it had to involve elements other than the purely military. The belief that operational skill could substitute for sound strategy—just plausible in Europe, and which undid Napoleon and doomed Germany twice in this century—never was credible in China. Those Chinese who were charged with military operations instinctively considered them within a complex cultural, political, and moral context.

Therefore ancient Chinese military works might appear rather modern to the Western mind. Since at least the beginning of revolutions in military affairs in the early 19th century there has been a tendency in the West to assume that increased power would make military solutions to problems easier. So time and again we have looked to weapons for decisiveness—be it rapid-firing guns, tanks, airpower, or current high tech. But with the advent of nuclear weapons and the expansion of potential battlefields to a global scale, we may reach a point where decisive force is increasingly difficult to achieve. This situation, however, is familiar to Chinese whose fundamental approach to warfare stresses the limits and hazards of relying too heavily on force alone.

For guidance on operating in such conditions, the Chinese regularly turned to specialists in *ping fa*, or the way of warfare, a number of whom have ancient texts attributed to them and who are not by any means adherents to a single approach. Five ancient works and one of later origin were collected about 1073 in the Sung dynasty as China faced a severe military threat; this collection became a standard work and has been influential ever since. Now it has been translated and introduced with great skill and clarity

by Ralph Sawyer, a businessman and scholar, in a tome that should be on the shelf of every officer with an interest in traditional Asian military thought.

By far the most influential Chinese military thinker is Sun Tzu, and three translations of the text bearing his name have just been published by J.H. Huang (a Chinese philologist now based in California), Roger T. Ames (a specialist in Chinese philosophy at the University of Hawaii), and Ralph D. Sawyer (the translation can be found in his *Seven Military Classics*, but a more extensive introduction and notes appear in a separate volume also listed above).

Each translation has a particular strength: Huang presents the text in two parallel columns, one unfolding the topic and the other giving Sun Tzu's particular insights, that makes the structure of text clear where it can be obscured when published as one short paragraph after another. Ames's edition is the most attractive, offering Chinese as well as English texts, and an introduction which will have particular import for those interested in Sun Tzu as a text of philosophy as well as strategy. Sawyer, however, is the only translator of the three to present, in addition to a very fine English version of the text, a comprehensive introduction that provides the necessary background on Chinese warfare of the period. This fills half the volume—pages which are well used—and is illustrated with helpful battle maps and charts.

The differences among the three volumes illustrate different approaches that can be taken to Sun Tzu. Thus there are certain key words in Sun Tzu which are not easy to put into English but are central to his whole approach. Dozens of examples could be given but a few will have to suffice.

One is the word *kuei*, found in the passage that Griffith translates "All warfare is based on deception." That sounds like a strong claim, and many war college lecturers invoke it to argue that Sun Tzu meant something very different than Clausewitz. Ames renders the passage "Warfare is the art (*tao*) of deceit" while Sawyer

translates it "Warfare is the way (*tao*) of deception." Huang, though, takes the phrase very differently: "Military operations entail unconventional means." From Huang's comments it emerges that the root meaning of *qui* (which others make *deception*) is *to go against*. The art of war is "to go against [what is usually done]" which is to say employ *unconventional means*. Huang buttresses this reading by referring to a Sung dynasty commentator who maintains that *qui* in this passage meant skill in using forces and did not connote deception.

The same is true of another celebrated passage that Griffith translates "What is of supreme importance is to attack the enemy's strategy." Here Ames is pretty much in agreement: "The best military policy is to attack strategies." Sawyer, however, is less abstract: "The highest realization of warfare is to attack the enemy's plans" and Huang more so: "So the best strategy is to crush their plans." Perhaps the most interesting example of such a word is *shih*, which is found in the title of the fifth book. Griffith translates this as *energy*; Huang makes it *combat power*; Sawyer renders it *strategic military power*; Ames translates it *strategic advantage*. Each has its warrant, but again the differences are revealing.

Huang's *combat power* (like his *unconventional means*) is the translation that sounds most like Western military language (though it is supported by references to ancient usages in the *Shuo-wen*, *I-ching*, and other classics). It contains little hint of Chinese philosophy, but rather suggests something quite familiar in the West: force or power (either latent as in a set crossbow or unleashed as in a flood able to move boulders). Sawyer's translation is similar, but Ames, who has written extensively on the term's meaning, takes a suggestion from the contemporary scholar Hsü Fu-Kuan that the word was first used to discuss contention over advantageous terrain. That is, as Ames reads the text, even a word which might sound intellectually congenial to a Westerner—the

rubric under which firepower or throw-weight might be found—acquires a rather abstract thrust. One is not looking simply for *power*, but rather for circumstances—whether terrain, correlation of forces, or psychological advantage or disadvantage—that are conducive to victory.

In English we would use at least two different terms to express these two aspects of meaning: the one material, the other intellectual and psychological. The Chinese use only one, not because they are confused, but simply because they slice reality differently. They see the strategic aspect of *shih* (choosing terrain or a situation that is advantageous) as inseparable from the physical aspect (combat power). So *shih* is not something measurable although it has an objective component. Above all it is psychological, part of the Sun Tzu-nian understanding of conflict which implies that victory and defeat are ultimately mental states.

Behind this lies a philosophical background—the distinctions between the ancient Chinese view of a single universe and Greek dualism, between the temporal and the absolute—which Ames illuminates in his fine introduction. Before dismissing all this as too abstract, it is worth noting that today, perhaps more than in the past, the American military is being used in environments that it cannot dominate by sheer force. Military strategists today must take the context in which they use force as seriously as Sun Tzu, and recognize that the *shih* of our military, however we measure it, is the product of a successful combination of inherent strength with an advantageous situation.

Similar patterns of difference run through all three volumes. Oversimplified they show that scholars do not agree on whether Sun Tzu essentially is a realist—whose fundamental concern is the use of force and who is thus largely understandable through Western analytical categories—or whether the text expounds an approach to war that in its fundamental definitions and assumptions differs profoundly from the mainstream of Western military thought.

This, of course, is a specific instance of a general question: is there a specifically *Western* way of war? Or, if there have been non-Western ways in the past, do they continue to exist today? Or is everyone adopting the Western model as manifested most recently in Operation Desert Storm? Even Sun Tzu's homeland, the evidence would suggest, has adopted the Western way. How else are we to explain the emphasis on weapons and technology (whether in Peking or Taipei) on which vast sums of money are being spent?

To make that assessment, however, is perhaps to fall into the trap of looking most closely at that with which we are most familiar. The concepts of war that underlie the use of new weapons which the Chinese are acquiring would be familiar to Chu-ko Liang and Sun Tzu. Why? Because they are appropriate to objective conditions, both physical and psychological, of Chinese warfare. Nor is their relevance limited. As mentioned earlier, the very quantity of firepower now available to the military has rendered obsolete a lot of Western thinking about war, in particular the notion of winning by a preponderance of force alone. It may be that the Chinese emphasis on stratagem—or to put it another way, on the autonomy and importance of properly understanding and conceiving of war—offers an intellectual context for modern weaponry that the Western tradition has difficulty providing. That is a question for military professionals to determine. Now, at least, thanks to the works reviewed here, nonspecialists in Asian questions will at last have a foundation on which to base that determination.

JFQ

FALAISE, THE HIGHWAY OF DEATH, AND MOGADISHU

A Book Review by
STEVE E. DIETRICH

The Battle of the Generals: The Untold Story of the Falaise Pocket—The Campaign That Should Have Won World War II

by Martin Blumenson
New York: William Morrow, 1993.
288 pp. \$25.00.
[ISBN 0-688-11837-2]

That history repeats itself is debatable; that history offers glimpses of recurring problems is undeniable. The parallels between Normandy and recent operations are haunting illustrations of recurring problems. Martin Blumenson's *The Battle of the Generals* is a provocative assessment of the final operation of the Normandy campaign in 1944. He argues that had Allied commanders not faltered, it would have been the final operation of the war.

Blumenson highlights demands on senior leaders in the tactical, operational, and strategic arenas. He describes difficulties of command, control, and communications in a multilateral force dominated by bilateral agreements. Normandy offers compelling examples of what occurs when national objectives are at odds with coalition planning. And he recounts disagreement over air support for ground operations which reveal flawed joint operations. Though the Armed Forces have made great strides in joint and combined warfare, the images recalled suggest similar recent challenges to commanders across the

sands of the Arabian peninsula and down the alleys of Mogadishu.

Blumenson is one of the last of a breed. His career began as an official Army historian serving in the European theater during World War II. He wrote two "green books",¹ authored over a dozen other works, and edited *The Patton Papers*.² Hunched over an antiquated typewriter, carefully crafting each sentence, Blumenson writes in a delightful style. With flowing but succinct prose he packs more information into a single brief paragraph than many authors cram into a thirty-page chapter—and he challenges the reader to think. Conceived for a wide audience, *The Battle of the Generals* is jargon-free and requires no special knowledge of World War II. Documentation is sparse, and serious readers will want to refer to better maps than those found in the book.

The Falaise pocket is not really an untold story. Blumenson himself told it in *Breakout and Pursuit*.³ But "green book" authors were instructed to detail *what* happened. It seems Blumenson has written this latest book to appease that old veteran who said "We don't need you historians to tell us *what* we did, only we know that. We need you to tell us *why* we did it." Here he succeeds.

The first third of the book provides one of the best overviews available of World War II Allied opera-

Bradley and Patton.



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General Schwarzkopf and friends.



U.S. Air Force (H.H. Deffen)

tions in the Mediterranean and western-European theaters prior to the D-Day landings. The middle chapters deal with the first two frustrating months of the Normandy campaign. In the final third, Blumenson analyzes what happened at the Falaise pocket and critiques the generals. His assessment is fresh, almost shocking.

Blumenson portrays a “disjointed” alliance headed by inept commanders who were unable to properly control air forces or each other. Eisenhower was the overall commander; Montgomery was the ground component commander and also led 21st Army Group; and, under Montgomery, Bradley was the commander of First Army until taking over the newly activated 12th Army Group. Eisenhower assumed ground command from Montgomery on September 1, making Montgomery and Bradley equals just six days after the Normandy campaign ended.

To Blumenson the three generals “fumbled badly,” especially Montgomery. Eisenhower did not intervene when he should, Bradley interfered where he should not, and Montgomery’s involvement was unwelcome to the Americans. The generals erroneously focused their efforts on taking terrain, not defeating the enemy. Patton, who assumed command of the Third Army under Bradley’s 12th Army Group on August 1, “was the single comman-

der who grasped what needed to be done and how to do it,” except he was “unable to make his genius felt” and was consequently “lured astray” by his bungling superiors. As a result of command problems, Blumenson contends, thousands of Germans who should have been captured or killed in the Falaise gap—created after an enemy counterattack at Mortain drove a forty by fourteen-mile bulge in Allied lines in August 1944—escaped with much of their equipment through a gap that was closed too late. Surviving German troops later haunted the Allies at Arnhem, Huertgen Forest, the Ardennes, and elsewhere.⁴

Blumenson states that Patton should have had Bradley’s job before D-Day. Eisenhower’s classmate and six years Patton’s junior at West Point, Bradley had been subordinate to Patton in North Africa and Sicily. Eisenhower elevated Bradley over Patton as senior ground commander for the invasion of France only because Patton was in disgrace for slapping two soldiers in Sicily.⁵ Inexperienced, Bradley was uncomfortable in his relationship with two old warriors, Patton and Montgomery. He knew that he had not earned their respect as a commander. Patton, however, could have met Montgomery as an equal. “The thrust of Patton and the balance of Montgomery would have produced a perfectly matched team.” He concludes that the Eisenhower-Montgomery-Patton relationship could have entrapped the Germans in the Falaise

gap bringing “a much earlier end of the war in Europe.” Instead, Allied discord caused the war to last ten additional months.

For the first three months after D-Day, Eisenhower had remained with his headquarters in England. He left Montgomery in command on the ground. Bradley rarely met with his temporary superior, a man whose arrogance he despised. Montgomery, failing to take his objective of Caen until the end of July, had his hands full with the multilateral 21st Army Group and exercised little operational control over Bradley. Eisenhower found that he was unable to motivate Montgomery to move aggressively enough, and Montgomery’s insolence nearly pushed him to relieve Britain’s most famous soldier. Lacking coordination, Bradley and Montgomery failed to close the gap at Falaise in time. But Bradley halted Patton’s advance before it crossed into Montgomery’s sector where it may have resulted in a friendly fire incident with distant Canadians. Simple coordination between Bradley and Montgomery or closer involvement by Eisenhower could have resolved the problem and allowed them to knock two German armies out of the war.

Earlier, a lack of proper coordination between the Army and the Army Air Forces resulted in costly friendly fire incidents. Bradley planned Operation Cobra to break through the hedgerows of Normandy, which had reduced fighting to a slug-fest reminiscent of the trenches of World War I. In an unusual operation, Allied bombers would dump a carpet of bombs on a long, narrow strip into the enemy lines in front of American troops near St. Lo. Two infantry divisions would rush into the gap created by the bombing and hold open the shoulders while two armored divisions charged through. Bradley wanted the bombers to approach the target parallel to his front lines to avoid the possibility of stray bombs landing on friendly troops. The bombers struck twice in two days, both times attacking perpendicular to the front lines and directly over the troops, both times dropping

bombs short and killing or wounding hundreds, primarily members of the 30th Division. The controversy over whether Bradley approved the perpendicular approach or the Air Forces simply ignored his instructions still rages today.⁶

Controlling combined operations in Normandy was even more precarious. In the British sector, under Montgomery's 21st Army Group, a Canadian army controlled a British corps with both British and Canadian divisions. Montgomery also controlled a British army with a Canadian corps consisting of Polish and Canadian divisions. The American sector was homogenous except for Leclerc's 2nd French Armored Division under XV Corps. Operations of these units offer examples of challenges to combined command. Differences in experience, equipment, logistical requirements, organization, doctrine, training, perceptions of other nations' soldiers, and further thorny issues reveal themselves for analysis. For example, Blumenenson accuses Leclerc of disobeying the attack orders of a U.S. commander by keeping his forces available for the liberation of Paris, a national political objective which was at odds with coalition operational needs. In the ensuing confusion, Leclerc's formations impeded an advancing U.S. unit, possibly preventing a timely closing of the Falaise gap.

Blumenenson concludes that for British, Canadian, and American armies in Normandy "No coherent leadership bound all the parts together to form a unified whole." For the often impromptu multinational forces of today—organizing rapidly in response to global crises—cooperation among allies is vital to success. The recent disastrous Ranger operation in Somalia highlights one aspect of the problem⁷ and Bosnia might provide parallels to flawed multilateral operations in Normandy.

Bradley's squabbles with the airmen during Cobra foreshadowed Schwarzkopf's problems with his air commanders in Saudi Arabia. According to one account, Schwarzkopf had ordered the Air Force to



Marines raiding
Bakara Market,
Mogadishu.

U.S. Navy (Terry Mitchell)

strike Iraqi Republican Guard divisions with B-52 bombers in the first hour of the war on January 17, 1991. Schwarzkopf was enraged to discover on January 15 that air planners had decided not to strike the Republican Guard formations until 18 hours into the war after enemy air defense systems had been destroyed.⁸ In a situation eerily similar to the acrimonious exchanges between Bradley and his airmen Schwarzkopf accused the chief air planner and commander of all Air Force wings in southwest Asia of having lied to him.⁹ As in Bradley's case, Schwarzkopf's problem stemmed mainly from a misunderstanding between air and ground commanders.

To improve coordination of air and ground operations and to ensure ground commanders received appropriate air support, Schwarzkopf had his deputy meet daily with the Allied Forces Central Europe (AFCENT) commander.¹⁰ Still, in early February the Army corps commanders "bitterly complained" to Schwarzkopf "that the Air Force was not hitting the targets they had chosen."¹¹ Again, a lack of agreement between the Army and Air Force on how best to employ available airpower was to blame. The debate continues over why the Air Force did not destroy at least 50 percent of Iraqi ground

forces during the 38-day air campaign as Schwarzkopf directed.

A chilling similarity between Desert Storm and the Falaise pocket was the failure of both Allied operations to encircle completely and destroy or capture the enemy's main force. Bradley accused the British of pushing the Germans out of the open end of the Argentan-Falaise pocket like "squeezing a tube of toothpaste." Referring to Bradley's comment as dishonest, Blumenenson points out that it was Bradley who failed to close the pocket and later defended his actions by arguing that he preferred to have a "solid shoulder at Argentan to a broken neck at Falaise." Whether the gap could have been successfully closed earlier, however, is also arguable.¹²

James G. Burton, a retired Air Force colonel, sparked a debate in the *Proceedings* over the past year with an article accusing VII Corps of failing at the end of Desert Storm to destroy the Republican Guard as ordered, instead "pushing them out the back door."¹³ In a subsequent piece inspired by Burton's charge, a retired Army general insisted that Republican Guard soldiers and equipment survived to harass the

Kurds because Schwarzkopf failed to plan to entrap them.¹⁴ Whether coalition forces could and should have completely captured or destroyed the Republican Guard is controversial. But the fact is that Schwarzkopf ordered the destruction of Saddam Hussein's elite units and many escaped.

Blumenson completed this book before the Persian Gulf War. It is interesting to ponder whether its publication at that time may have influenced the planning or outcome of Desert Storm. Perhaps a historically-minded planner might have provided for the entrapment of the Republican Guard to prevent an escape comparable to Falaise. Perhaps Schwarzkopf might have been more careful to ensure the Iraqi escape route was cut before agreeing to end the fighting. Blumenson's contentious book should stimulate a lively debate in this regard. The Eisenhowers, Montgomerys, Bradleys, Pattons, and Schwarzkopfs of tomorrow will be better joint and combined commanders because of their awareness of recurring operational problems. **JFQ**

NOTES

¹ Volumes in the *U.S. Army in World War II* series published by the U.S. Army Center of Military History (ex-Office of the Chief of Military History) are known as "green books" due to the color of their buckram bindings. Blumenson's "green books" include *Breakout and Pursuit: U.S. Army in World War II, The European Theater of Operations* (Washington: Office of the Chief of Military History, 1961) and *Salerno to Cassino: U.S. Army in World War II, The Mediterranean Theater of Operations* (Washington: Office of the Chief of Military History, 1969).

² *The Patton Papers*, vol. 1, 1885–1940, and vol. 2, 1940–1945 (Boston: Houghton Mifflin, 1972 and 1974).

³ Blumenson, *Breakout and Pursuit*.

⁴ Blumenson, "Cantigny Discussion," a paper presented at the conference on Normandy sponsored by the Robert R. McCormick Tribune Foundation and U.S. Naval Institute at Cantigny in Wheaton, Illinois, on March 2–4, 1994.

⁵ Eisenhower's biographer recently claimed that Bradley was selected over Patton because he had more confidence in Bradley's abilities; Stephen Ambrose, "Dwight Eisenhower: Command, Coalition, and Nor-

mandy," the keynote address at the Robert R. McCormick Tribune Foundation and U.S. Naval Institute Normandy Conference.

⁶ In *Battle of the Generals* (pp. 129–41), Blumenson insinuates that the Army Air Forces ignored Bradley's instructions for bombers to strike parallel to friendly lines and later lied about it. In *Breakout and Pursuit* (pp. 231–33), Blumenson highlighted the "unsatisfactory . . . absence of firm understanding and mutual agreement" between Bradley and the airmen. But Geoffrey Perret in *Winged Victory: The Army Air Forces in World War II* (New York: Random House, 1993) claims that air commanders convinced Bradley to approve the perpendicular approach and that he later lied in blaming the Army Air Forces for disobeying his instructions and falsified a document to help prove the case. At the Normandy Conference in Wheaton, Illinois, on March 2–3, 1994, Bradley biographer Clay Blair pointedly stated that Bradley, as a man of honor, was incapable of such dishonesty. There can be no doubt, however, that Bradley agreed that the second bombing run would overfly his front lines. *The Army Air Forces in World War II*, vol. 3, *Europe: Argument to V-E Day: January 1944 to May 1945*, edited by Wesley F. Craven and James L. Cate (Chicago: University of Chicago Press, 1951), an official history, is silent on this subject.

⁷ Rick Atkinson, *The Washington Post*, January 30–31, 1994.

⁸ Rick Atkinson, *Crusade: The Untold Story of the Persian Gulf War* (New York: Houghton Mifflin, 1993), pp. 105–06.

⁹ Atkinson, *Crusade*, pp. 105–06; see also Robert H. Scales, Jr., et al., *Certain Victory: The U.S. Army in the Gulf War* (Washington: Government Printing Office, 1993), pp. 176–78.

¹⁰ Eliot A. Cohen, *Gulf War Air Power Survey*, vol. 1, part II (Washington: Government Printing Office, 1993), pp. 57–58.

¹¹ Frank N. Schubert and Theresa L. Kraus, editors, *The Whirlwind War: The United States Army in Operations Desert Shield and Desert Storm* (Washington: U.S. Army Center of Military History, forthcoming), p. 289.

¹² In a forthcoming article to appear in *Military History Quarterly*, Carlo D'Este supports Bradley's decision that, without major reinforcements, his forces were spread so thinly that if the gap had been closed they would have been vulnerable to attack by escaping German units.

¹³ James G. Burton, "Pushing Them Out the Back Door," *U.S. Naval Institute Proceedings*, vol. 119, no. 6 (June 1993), pp. 37–42. See responses under the same title in the ensuing issues.

¹⁴ John H. Cushman, *U.S. Naval Institute Proceedings*, vol. 119, no. 10 (October 1993), pp. 76–80.

MUCH MORE THAN "FROM THE SEA"

A Book Review by

JOHN N. PETRIE

How Navies Fight: The U.S. Navy and Its Allies

by Frank Uhlig, Jr.

Annapolis: Naval Institute Press, 1994.

455 pp. \$34.95.

[ISBN 1-55750-853-4]

More wealth than most nations command and more foresight than men normally possess are needed to produce a fleet suitable for all occasions.

Frank Uhlig brings a lifetime of experience to this book. His research started when, at the age of seventeen, he joined the Navy as the Nation was engaged in the greatest maritime struggle the world has known. Since then he has been deeply involved in recording and analyzing the way navies fight. If one were to advertise for an authority to write a book such as *How Navies Fight* the qualifications would describe Uhlig. Consequently, this work is a superb piece of history and analysis presented in elegant but simple prose. It examines what navies do and provides a history of the U.S. Navy at war. The account spans three centuries of naval combat in every ocean and on the lakes and rivers of three continents.

Beginning with American and French navies and privateers operating against the British in 1775 and culminating with Desert Storm, *How Navies Fight* offers readers an unvarnished account of what the Navy has done, how it has done it, why it has done it, and whether it was done well. Along the way we learn things about allies, enemies, and in a couple

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of cases about friends who fought one another. The analysis is clear and concise which is rare in such literature.

But *How Navies Fight* offers more than it claims. A careful reading will reveal how navies operate with their sister services. Naval missions necessarily rely upon and routinely support other services simply because navies rarely fight alone. In this respect Uhlig has produced a clandestine primer on joint operations.

What comes across is that the critical business of navies is not widely heralded operations. Fighting on, over, and under the oceans involves more than projecting power ashore "From the Sea," though such operations are undoubtedly an important part of it. *How Navies Fight* captures the unglamorous but absolutely critical dimensions of naval warfare in the broadest sense. It deals with ensuring national security and successfully conducting operations both in and from a maritime theater if deterrence fails. Uhlig's conclusions come down to basic, yet often unrecognized facts. Since America gained its independence the Navy has regularly performed five wartime missions: strategically moving troops, acquiring advanced bases, landing forces on hostile shores, mounting blockades, and mastering the seas.

A rightsized force and the mixed blessing of a peace dividend means not expecting to have anything in excess. Without knowing the specifics of the next war, the lessons of history found in this book can serve as a guide to balancing maritime forces. After spending my career in frigates and destroyers it was no surprise to learn that the Navy has never had enough small combatant ships when war broke out. I also knew that we have always lacked sealift vessels—which we are now acquiring faster than any other type of ship. But now I have also come to realize that we may be short of amphibious ships as well. That potential shortage is especially worrisome considering the average age of our amphibious force. Many ships are nearing or are at the end of their effective period of service. Fortunately, a new vessel is far more capable than any



U.S. Navy (Ron Wimmer)

two that it may replace; but it can only be in one location at a time. Today the loss of one amphibious ship could remove enough capability to make a planned operation inexecutable or at least ill-advised.

Some relief is gained by the increased and improved use of near-term prepositioned ships carrying a generic unit's equipment. These ships allow forces to be airlifted into theater and fall in on identical gear to that on which they have trained.

A consistent dilemma made clear by chronicles of combat operations is that airlifting moves the first part of a force faster, but by the time the whole unit is airlifted it could have all been moved faster, cheaper, and with greater integrity by sea. So decisions on lift turn on how quickly forces need to arrive, adequate airfields with sufficient ramp space and maintenance, the character of the transportation infrastructure, and the availability of port facilities and sealift. Most situations can be expected to require both airlift and sealift, and few if any will require

only airlift. But we must remember that neither airlift nor sealift are useful in an assault on hostile shores.

That brings up the question of naval gunfire support. Modern five-inch gun batteries are exceptionally well suited to this mission; but there are not as many of them as we would like. Previous conflicts have repeatedly proven that even larger calibre guns were essential to difficult fire support missions. Those guns are gone. Hardened targets and bridges are tough to engage with five-inch ammunition. The Oliver Hazard Perry class ships have a superb 76 mm gun. But it is not the optimum gun for fire support missions and raises the question of how to kick the door open for opposed amphibious landings. Precision munitions delivered by attack planes can pick up some slack—but that is more expensive and less flexible than fire support afloat. And these missions will have to compete for priority with a complex target list which can only be carried out by precision munitions.

In World War II pre-assault bombardment grew longer as the

conflict went on, with some fire missions lasting days. In the Pacific Japanese defenders pulled out of range of naval gunfire thus surrendering the advantage to engaging forces when they were most vulnerable, crossing the beach. This was a great tribute to the effectiveness of bombardment. This and more is revealed in Uhlig's analysis of the war in the Pacific. In the near future we will have a smaller force which necessitates minimizing casualties. Both shore bombardment and fire support need closer looks.

Though we can expect that allies will make the facilities for administrative off-load of ships and aircraft available it is not a given. An enemy may try to either seize key transportation nodes or make them untenable. Not every potential ally has airfields which can receive C-5s or ports which can accommodate roll-on/roll-off ships. A smaller, more sophisticated force as advertised in the Bottom-Up Review needs to remember that the theater of war will define the options for entry. Sometimes the only way in will be across a defended shore.

Finally, in crossing hostile shores we should anticipate that sea denial forces will attempt to inflict a heavy toll. If an enemy can make the likely cost of an operation appear unacceptable, domestic political considerations could allow him to win without firing a shot. Today's force has been designed to minimize the effectiveness of most sea denial forces—but mines will continue to be a significant threat.

Conducting a blockade is tedious and frequently finds too few ships attempting to cover too much sea room. It is a naval operation characterized by days of boredom interrupted by a few minutes of intense danger which then quickly returns to boredom. Over the years a wide variety of applications and innovations have been made to fulfill the blockade mission. The classic operation used by Union forces to close Confederate ports in the Civil War varied little from the maritime interdiction as conducted by coalition

forces in Desert Storm. But U-boat campaigns in the Atlantic, U.S. submarine operations in the Pacific, the Cuban missile crisis quarantine, Operation Market Time in Vietnam, the current embargo on the states of former Yugoslavia, and the Haitian embargo all represent the mission of blockade in naval warfare. It is a function unlikely to fade into history during our lifetimes.

Progressive changes in technology have caused many aspects of naval combat to adapt over the years. For example, mastery of the local sea once meant a small area attendant to an ongoing operation. The area involved has been expanded to cover the operating radius of new weaponry and sensors, and includes air superiority and access to hostile shores. In Desert Storm coalition forces needed maritime superiority throughout the Red Sea, Persian Gulf, and maritime approaches to both. Six carrier battle groups, two battleships, several cruisers, an amphibious ready group, scores of frigates and destroyers, many mine warfare ships, logistics support ships, and several submarines were committed to the fight. While it was assumed that they enjoyed total command of the sea, Uhlig makes the case that they did not.

Remarkably, the Navy did not do a good job in mastery of the seas in combat—a primary mission. U.S. and coalition forces swept the Iraqi navy into the dustbin of history, and allied air superiority was unchallenged after the first few days of combat. But mines sowed in the shallows off Kuwait and hardened batteries along its coast—emplaced during Iraq's six-month occupation in anticipation of an assault—constituted formidable sea denial forces. There were numerous, though apparently insufficient, mine countermeasures ships in theater, and clearing mines along a heavily defended shore could have been difficult. While a successful assault on the Kuwaiti coast was possible, a naval demonstration proved to be the best use of amphibious forces. It drew off Iraqi attention as the 'left hook' maneuver out-flanked them in the desert. This plan forced Saddam to

capitulate but circumstances in the future might not allow us so much flexibility.

This was better than the situation in Vietnam where America and the South Vietnamese only appeared to control the local waters for different reasons. Political intimidation—Khrushchev had warned that a blockade would have grave consequences—paralyzed our will. It prevented us from interdicting war material delivered by sea to North Vietnam. As a consequence the Navy and Coast Guard undertook a blockade of South Vietnam (Operation Market Time) which, though effective, largely intercepted and harassed vessels of the nation we were supposed to be assisting. But when Market Time forced Hanoi to divert supplies to the Cambodian port of Sihanoukville for overland infiltration to their forces in South Vietnam, political concern over widening an already unpopular war prevented effective interdiction. It was not until the 1970 coup in Cambodia that Sihanoukville was closed. By then the Ho Chi Minh Trail was operating every night and air interdiction efforts had only marginal success. So an enemy with no real naval or air power was able to achieve—as a result of our political caution—what it could never have done tactically. In Vietnam we never tried to attain mastery of the local sea even though essentially unchallenged after early August 1964.

Other naval warfare functions which arise are less essential to victory at sea but are typical of naval activity. Among them are commerce raiding, naval raids ashore, fleets in being, cutting lines of communications, cruises against enemy raiders, protection of shipping, bombardment, fire support of troops ashore, movement of forces, scouting, communications intelligence, naval demonstrations, evacuation of endangered troops, operations in aid of friendly governments, rescue of civilians, and troop support and air warfare functions where airfields are insufficient or unavailable. In a

world where no major adversary has yet emerged, we should anticipate the Navy being called upon to perform a number of small but dangerous missions. They will undoubtedly include operations similar to those identified above. It will be surprising if a year passes without the Navy executing a rescue mission in support of an American embassy or providing relief to victims of a natural disaster. The Navy's role in non-combatant evacuation operations has now sadly become an art form. These extremely dangerous operations have been consistently executed without fanfare and without friendly casualties.

How Navies Fight is nearly flawless but it could benefit from the inclusion of additional maps. In particular, maps should accompany the discussions of operations in the Philippines after the Battle of Leyte Gulf as well as in the region from the Bay of Bengal to the Gulf of Thailand.

Overall this book is readable and thought-provoking. If Potter had not written *Sea Power*, then this work by Uhlig would likely be the standard text for naval science courses of the future. But its value is more than academic. It informs the uninformed and moves knowledgeable readers to question assumptions about naval combat and the Navy's contribution to warfare. In dangerous and uncertain times it is useful to question assumptions.

This book should be read by newly promoted general officers of the Army and Air Force who want to understand the relationship between their service's capabilities and those of the Navy.

JFQ

AUSTRALIA AND THE GULF WAR

A Book Review by

ALAN L. GROPMAN

The Gulf Commitment: The Australian Defence Force's First War

by David Horner

Carlton, Victoria: Melbourne University Press, 1992.

238 pp. \$ 24.95.

[ISBN 0 522 84511 8]

Australia's Gulf War

edited by Murray Goot and Rodney Tiffen

Carlton, Victoria: Melbourne University Press, 1992.

304 pp. \$ 24.95.

[ISBN 0 522 84463 4]

Of the many books that have appeared in the aftermath of Operation Desert Storm, the two reviewed here look at operational and geostrategic aspects of Australia's experience in the conflict. *The Gulf Commitment* by David Horner is largely a campaign history while *Australia's Gulf War*, an anthology edited by Murray Goot and Rodney Tiffen, is an analysis of Australia's overall role in the war. The latter is a more valuable contribution to the literature on the war since Australia's part was limited to the activity of the three naval vessels which participated in the U.N. embargo of Iraq, while the geopolitical impact of the war had far greater consequences for Australia.

Australia's Gulf War is also important in understanding the domestic political and foreign demands which coalition warfare places on a country like Australia today. It could also serve as the model for a similar book about America in the Persian Gulf—one that treats such diverse issues as the moral, political, ethical,

and strategic factors of the conflict and their effect on minorities, the media, and long-term strategic interests. Such a comprehensive book remains to be written.

A few years before the Gulf War, Australia revised its defense policy during what was still a bipolar, Cold War world. After serious study under the ruling Labor Party, Australia adopted a course which called for self reliance within an alliance framework with much greater emphasis on regional associations. Militarily, the policy demanded defense in depth of the homeland, replacing a forward defense strategy. Australia's response to Iraq's invasion of Kuwait would seem to have violated this new policy, given the end of the Cold War and the swift dispatch of Royal Australian Navy (RAN) ships to the Gulf in 1990 (along with discussions about sending additional naval or possibly air assets to the area). But apparently the Gulf War and participating in it did not change Australian policy as not long after the conflict a strategic planning document iterating it was issued with a statement that "there is no reason to rush into a major overhaul of our defence policy."

Australia's Gulf War questions the relevance of defense policy in the face of that experience while David Horner's *The Gulf Commitment* does not. Horner provides an introductory chapter in which the shift in policy is discussed and an attempt is made to place the Australian role in the Gulf in context but he fails to make a case. Leaders go to war for complex purposes and Australia, like the other members of the coalition, went into the Gulf for various reasons although that region fell outside the scope of the new defense policy. Prime Minister Robert Hawke told parliament that the Gulf commitment was "proportionate to the interests we have at stake and to our national interests. It is also a practical commitment." But the political dimension of Australia's Gulf War commitment is better treated in *Australia's Gulf War* and includes consideration of that nation's association

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with and belief in the U.N. approach to collective security, relations with the United States, and a need for precedent-setting action to defeat Iraq's aggression against Kuwait.

After examining the strategic backdrop Horner details the efforts of the Australian military in the Gulf. Following internal discussion and a conversation between Prime Minister Hawke and President George Bush, the Australian cabinet authorized the dispatch of two sophisticated guided missile frigates and a slower but technologically advanced supply ship to the Gulf. They deployed with a combined complement of six hundred men on August 13, 1990.

Because Iraq had a large air force and surface-to-surface missiles, the Royal Australian Air Force (RAAF) assisted in training the RAN crews in air and missile defense by running hundreds of simulated attacks on the ships. RAAF F-111s, F/A 18s, P-3Cs, helicopters, and trainers (the last simulating Exocet missiles) flew more than 400 hours in practice attacks. Lear jets flown by contractors towed targets to sharpen the skill of RAN gunners. Since the navy determined that the supply ship's air defenses were inadequate for the region, the Royal Australian Army dispatched a detachment from an air defense regiment to ensure the safety of ship and crew.

The mission was to "prevent the import or export of all commodities and products to or from Iraq or Kuwait," but the initial rules of engagement issued by the government were too tame to permit the ships to effectively carry out this role. After a good deal of message traffic back and forth the ships were permitted to act aggressively, first firing warning and then disabling shots at vessels which failed to yield and also boarding ships which might be carrying forbidden materials. Australian frigates did fire warning shots at suspected ships and also boarded several.

The Australian contingent was indeed small—three ships as opposed to about 180 from the United States (including six aircraft carriers)—and only one of 17 national naval forces which

participated in the blockade. Yet their symbolic value far exceeded the military capability provided by these ships. Australia, a nation that sold Iraq wheat and other commodities, helped to enforce Saddam Hussein's diplomatic, political, military, and economic isolation, and also made a political statement at great cost in terms of trade which counted for much more than its military contribution.

Other Australian military elements did become involved. Eventually the first three vessels were replaced, one frigate by a guided missile destroyer, and mine-clearing detachments were sent to the area. In addition, some ground and sea force personnel who had been previously seconded to American and British units served in the Gulf. After Desert Storm, 75 Australian servicemen served in northern Iraq to aid Kurdish refugees. However, any thought the Hawke government might have had of sending RAAF combat units (with F-111s, RF-111s, or F/A-18s) was checked in part because of constrained resources, but mainly because of strident opposition from the left wing of the ruling party. The "convener of the centre-left faction . . . told the Prime Minister that he would face a party room revolt if the government tried to increase Australian forces in the Gulf."

The ships on duty in the Gulf from September 1990 to March 1991 acquitted themselves with a great deal of skill and pride. Horner concludes that in the Gulf War Australia "demonstrated . . . support for the role of the United Nations in protecting small countries, and in general showed that Australia would pull its weight internationally. However, the commitment also contributed to Australia's security by improving the efficiency and battle-worthiness of the ADF [the Australian Defense Force]." *The Gulf Commitment* is a graphic account of value to military professionals. While its purpose is limited, it fulfills that goal admirably.

In *Australia's Gulf War* Goot and Tiffen present a broader canvas. The book opens with a brief explanation by Minister for Foreign Affairs Gareth Evans on the strategic reasons for entering the war. Evans denies

that Australia followed the lead of the United States in the Gulf, but rather claims that it was acting only in its own interests. Next the case against Australian participation is made by two members of the left who make too much of the blunders by the American government in succoring Baghdad in the Iran-Iraq war and failing during the Reagan and Bush administrations to rein in Saddam Hussein's tyranny. The reality of the August 2, 1990 invasion and Saddam's unignorable threat to Saudi Arabia were facts that had to be dealt with, and prior mistakes were no justification for inaction in the face of a great menace. The authors, moreover, argue that continued economic sanctions and diplomacy versus the use of force would have worked to eject Iraq from Kuwait, surely a naive sentiment given Saddam's past and present actions. But this is not to say that this chapter does not score debating points on the effects of the Gulf deployment on Australia's democracy, and on its relationship with its neighbors, none of whom responded similarly. These two leftists also provide an example of the editors' approach to viewing issues from all sides.

As a tie breaker, the collection includes a chapter on the politics of Australian involvement by a neutral journalist who makes the point that Australia's long commitment to the United Nations weighed heaviest on the minds of the Hawke government, and not George Bush's requests.

The next five chapters focus on the home front. One treats experiences of Arab-Australians (the majority of whom are Lebanese and Christian) and their trial at the hands of native Australians. Another deals with the experience of Jews in the face of increasing anti-semitism also at the hands of native Australians. Both articles point out that attacks on Arab and Jewish institutions brought Arabs and Jews closer as both communities condemned attacks on any ethnic group or facility.

Another chapter covers the largely impotent peace movement

Puma helicopter
hovering over
HMAS Darwin.



U.S. Navy (John Bouvia)

that tried unsuccessfully to use the Gulf War to drive a wedge between Australia and the United States. The author argues that despite a nationwide effort by peace groups the war "left the Australian people more in favour of the United States, the ANZUS alliance and joint [U.S./Australian] facilities than they were before."

Probably the most useful chapter in *Australia's Gulf War* treats the news coverage. Every type of media is richly considered, and the author, one of the book's editors, knows this territory well. He is most critical of the anti-war and anti-American biases in the state-funded Australian Broadcast Company. He is even more disparaging of the extremely heavy use made by Australian television of American network coverage.

The last chapter in this section is on polls. The author, book co-editor Murray Goot, is an expert on polling, and he writes an exceptionally detailed chapter on the successes and failures of polling during the build-up and war phases. He found that a lack of money hampered both the frequency and detail of polls. Nevertheless, support for the war went up after the fighting began, with 75 percent of Australians eventually favoring involvement.

Three chapters then deal with the impact of the war on Australian foreign policy. The first details Australia's historical involvement in the Middle East, including its ties to Israel, pro-Israeli Prime Minister, extensive trade ties with many Arab countries, and the effects of its middle eastern policy on Jewish votes and campaign contributions.

The second chapter delineates Australia's (especially the Labor Party's) close connection to the United Nations. It was through this attachment, argues the author, that Prime Minister Hawke was able to overcome anti-American sentiment in his party. In 1945 Australia's then Minister for Foreign Affairs H.V. Evatt, a Laborite, was present at the creation of the United Nations and also played a major role in drafting the Charter and later served as president of the General Assembly. Norman Makin, also a Laborite, was the first president of the U.N. Security Council. The chapter concludes with this judgment: "The importance of the U.N. factor in selling the Government's Gulf policy to the Party cannot be exaggerated."

The final two chapters assert that Australia's participation in the Gulf demonstrated that the force structure developed for a self-reliant defense policy was ill-suited for distant force projection. A force structure more suited to the old forward defense force structure was needed. But Australia has not questioned its force structure, at least not publicly. Entering the Gulf War, moreover, also violated that part of Australia's defense policy that called for greater attention to regional concerns. Its neighbors were much more anti-American than Australia, much less pro-United Nations, and resolutely uninvolved in the Gulf War. Therefore, Australia may have wounded itself regionally as it tried to promote the idea that it is an Asian country not completely tied to America and its aims.

Australia's Gulf War is a thoughtful book with a serious end, and it deserves attention by readers on both sides of the Pacific. **JFQ**

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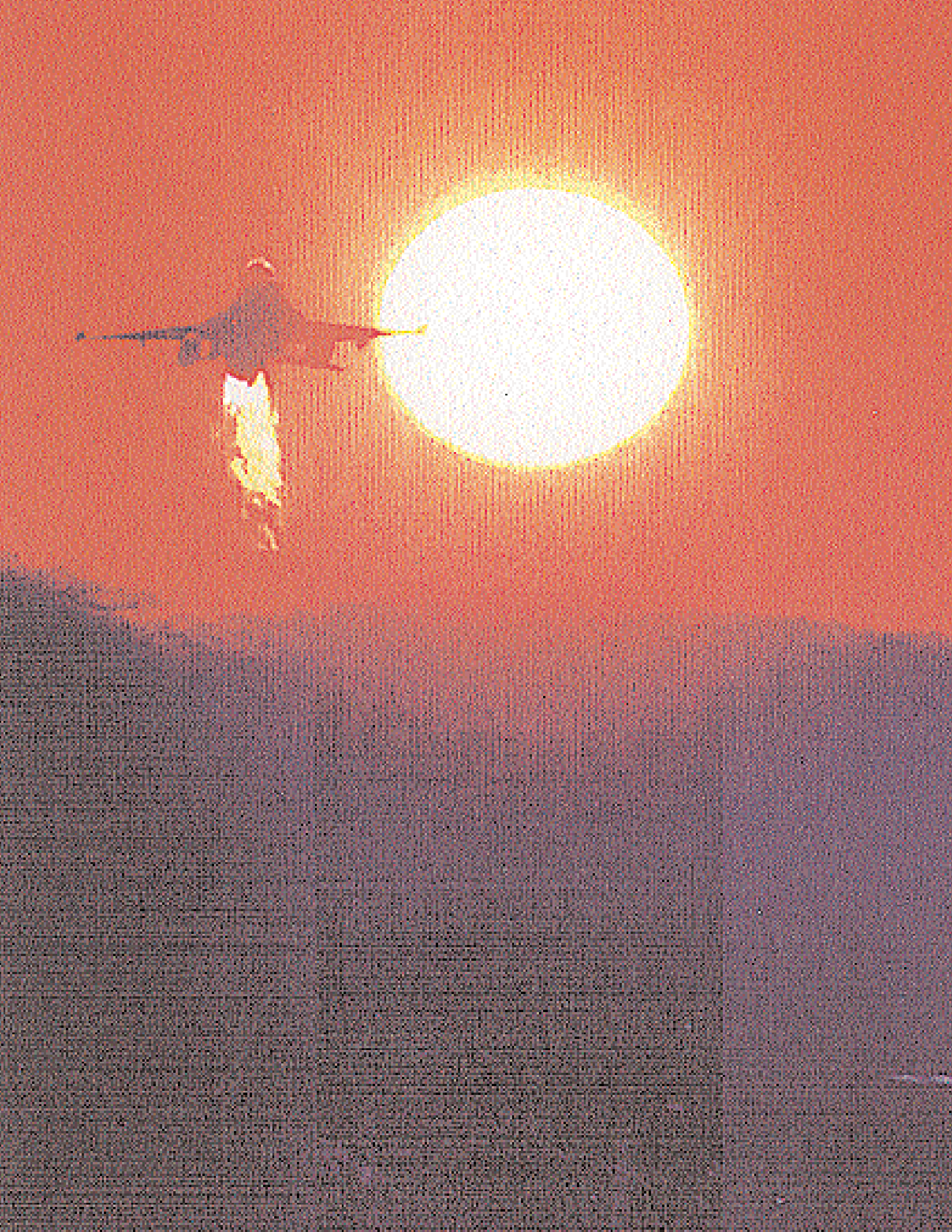
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WWII Campaign Medals



The back cover reproduces the "European-African-Middle Eastern Campaign" medal (above left) and the "Asiatic-Pacific Campaign" medal (above right), both of which were authorized for service in World War II. The former medal was awarded to members of the Armed Forces who served in Europe, Africa, and the Middle East between December 7, 1941 and November 8, 1945. The obverse shows combat troops under fire coming ashore from landing craft with a plane in the background. The latter medal was awarded to those who served in Asia and the Pacific between December 7, 1941 and March 2, 1946. The obverse shows forces landing in the tropics with a battleship, carrier, submarine, and aircraft in the background. The reverse side of both medals has an American bald eagle with the dates "1941-1945" and the words "United States of America."

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